FEBRUARY 1988

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Life as an Atari Developer
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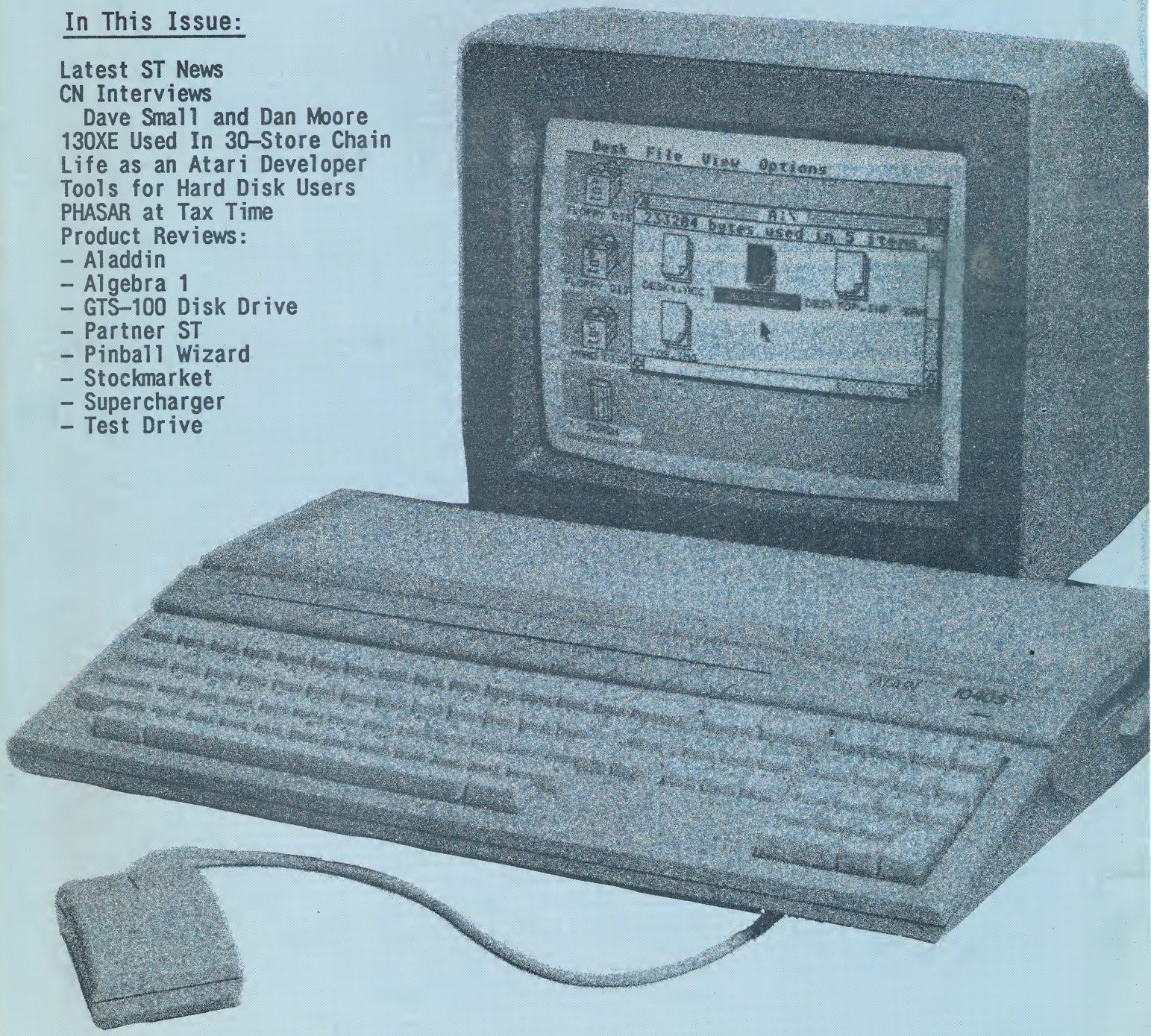

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EDITORIAL

By Joe Waters

For those of you who forgot that CN only goes out 10 times a year, rest assured you have not missed an issue. This issue, February, is the first one for 1988. You'll notice, of course, a new look on the cover. I hope you like it. (I hope I like it since, as I write this note, I have yet to see the fully-assembled final product.)

Although I expect to introduce other, gradual, improvements throughout this new year, by-and-large, CN will remain the same as it was in 1987. I calculated some summary statistics for last year. What was CN like in 1987? The average CN issue last year was 74 pages. Table 1 shows the percent distribution of a typical CN issue. Two-thirds of our pages contain Atari news, reviews, and articles -- about 585 pages of text over the course of the year. The 'Miscellaneous' category includes the cover, table of contents, list of advertisers, etc.

Table 1. Distribution of CN Pages in 1987

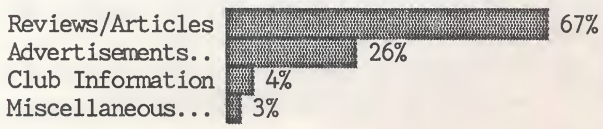
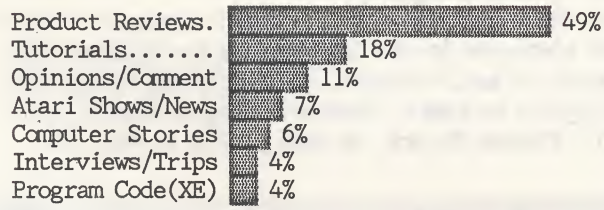


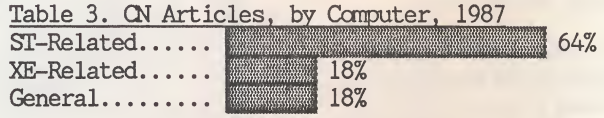
Table 2 shows the distribution of the 'News/Reviews/Articles' content by category. Half of our coverage is product reviews and nearly a fifth is devoted to tutorials. However, *CURRENT NOTES* is, more than most Atari-specific publications, current. So, a significant proportion of each issue is dedicated to bringing you the latest Atari developments, new product announcements, reports on Atari Shows, interviews with Atari personalities, and trip reports from our authors as they travel around the world. You will also notice that very little coverage is devoted to program code. In fact, we have more computer-related 'Stories' than program code. If you are really intent on programming the Atari computer and improving your programming skills, I'm afraid you will not get much help from CN. On the other hand, if you'd like to read an Atari magazine from cover to cover and have a good shot at understanding everything, we may be just your cup of tea.

Table 2. CN Articles, by Category, 1987



There has been some concern that CN has become too ST specific. (This concern, of course, has not been expressed by ST owners.) Table 3 shows the distribution of articles by computer. The dominance of ST-related articles clearly stands out. The poor 8-bit owner only gets about 13 pages devoted to his computer with perhaps another 13 pages of general interest articles/news he may find interesting. Let me offer a few observations about this.

Table 3. CN Articles, by Computer, 1987



First, the proportion of XE coverage implies about one XE page for every three and a half ST pages. I suspect that proportion is actually better than the ratio of new XE products to new ST products showing up on dealer shelves. If there aren't many new products out, there aren't many new things that can be reviewed. In fact, Evan Brooks had to abandon his "Battle Bytes" column because of a lack of new war game programs for the Atari 8-bit line.

Second, although the 8-bit line receives fewer pages than the 16-bit line, the 'old-timers' among our readers may recall the early years (volumes 1 through 4 of CN when there was no ST). The limited information of interest to 8-bit owners in each issue still represents more than was available in the entire newsletter in earlier years and, indeed, more than is available in most club newsletters around the country today.

Third, as publisher I can selectively recruit writers and, over the long-run, control the evolution of CN. However, I can not control whether a developer sends us a product for review (we received almost no new 8-bit products last year) or whether our readers decide to send us in articles or not (if you have an 8-bit, have you ever sent in an article?) So, you see, the relatively small amount of 8-bit coverage is not controlled so much by editorial decisions as by market forces and reader participation.

Fourth, I am working on improving the situation in 1988. Although here I have both good news and bad news. The bad news, and I'm sure this will bring a tear to many an eye, Mark Brown gives us his last installment of "Atari's Small Miracles" this month. This has been one of our most popular columns and Mark has done an excellent job since he started it way back in November 1985. Mark is off in college now

(Continued on Page 11)

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ST UPDATE

By Frank Sommers

LATEST NEWS IN THE ST WORLD

Three Companies

4 Million Customer Contacts - One is a hardware company, one software, and the third an airlines. Word Perfect, has almost six times as many employees as Atari, and Scandinavian Airlines has more than six times as many people as Word Perfect. All three market a product for a service for profit.

The president of the airlines used to drum home the fact to his employees that each one of the million Scandinavian Air customers has at least four different contacts with the company's employees. Unless each one of those contacts is "successful" that person probably won't be using their service again.

Word Perfect Corporation has an almost perfect understanding of this magic chain, a chain that starts with excelling in customer contacts and ends in the same excellence of knowing what the customer wants, when he wants it, and giving it to him. The inbetween part, the constant close monitoring of the marketing and distribution links of the magic chain is what ties it together, what makes the customer want it again and again and speak well of the product with everybody the customer talks to about it.

Scandinavian Airways is a leader in its industry. And Word Perfect Corp. is now the leader in the personal computer word processing world. Atari, however, still lags behind Commodore in number of machines sold. Now it finds its new Mega ST line is losing out to the Commodore Amiga. Why? Why is Atari viewed with suspicion in its domain and Word Perfect with envy in its. Atari's ST computer products are no less superior that Word Perfect's. Possibly superior when they first hit the market place, because WORDPERFECT, the program (WP), starts out bug-ridden whether for the IBM or Mac or ST. What is it then?

Quite possibly it's because even if you have the best airplanes in the world, if the customer doesn't trust you, he'll use somebody else's. Word Perfect Corp. has convinced its public that one of its main functions is to support them, and often with the speed of summer lightening. Within two months they've issued three revisions of WP. They have an 800 line for just the ST, where a program technician will work with you on your problem. They have a programmer, Steve Reiser, whose primary function is to collate all information on complaints and reported bugs from the technicians, as well as from his 800 line Beta test BBS, and generate instant revisions. These in turn go back out to the Beta's electronically for quick turn around before the masters are cut (latest revision is 8-9 January 1988). There are 11 people at Word Perfect working exclusively on the marketing, support and servicing of one program, WP for the ST. The white knight image is bright. By contrast Atari's first act under Jack T's management was to cut the electric umbilical cord between Atari and their customer's and kill their 800 lines. In fairness Atari has made a heavy commitment to Atari user groups and fairs. Neil Harris observes that they will intensify this commitment this year taking an active direct hand in the planning of the Atari Fests, staging some 3 a months right up thru the early fall.

But still, the fact is Atari management is described repeatedly in the west, mid-west and east by developers, dealers, and customers as "lacking direction". The fear of failure, or fear that Atari lacks a commitment to support their product is pervasive. And it is held by us, the very Atari addicts, who "would rather fight than switch", in the words of an old cigarette ad.

The Future

Transmitting vs Processing -- Since President Reagan has been in office, over 12 million personal computers of the $1,000 and above version have been sold in this country. In the same period the rate of increase in productivity in the service sector (the banks, insurance companies, airlines, hospitals, universities, etc.) has gone down rather than up -- a 1 % increase in the 1980's versus 1.5 % in the 1970's. That will not surprise many of you, who found that considerable time passed before you learned how to make your "machine" do the things that you both wanted and needed. So, productivity in an area, service, that is most difficult to measure, e.g. education, will probably show a computer related increase in the years ahead. But now John Gantz, editor of *Tech St. Journal*, raises an even more interesting idea, "We have come to the point where information transfer is more important than information processing." Cogitate. Burgeoning of fax systems, online data bases, fiber optic transmission lines, local area networking, all of it bespeaks a giant transformation in our present home and business

computing world as we know it. Many of us still marvel at uploading and downloading over a modem to some other part of the city or the country. And this it seems is just the beginning.

Star Wars vs the MAGIC SAC -- Data Pacific's emulation that permits the ST to run Macintosh software was "an astounding piece of business". But why stop there. By the end of the next decade, Star Wars (SDI) might be costing the taxpayers $500 billion dollars per year (some say "a reasonable cost-overrun"). Several CN authors, in their real lives, are involved on the periphery of this effort, but the most exciting bit of all of this comes from a recent interview with the inventor of the MAGIC SAC, David Small. The mind-warping thought thrown out by him? What if it turns out that the MAGIC SAC and the ST end up being the ultimate terminal for direction of Star Wars? A fantasy from David and Data P.? If it only takes a year or so to turn a Mac into an ST why not a Super Sac running the next war in outer space? That is if SDI is a fact, David, and not a fantasy ..... fantasy ..... fantasy .....

Software

Faster? -- PC-DITTO has issued their update, Version 3.0. Among several things, it supports the monochrome monitor and the mouse; something many of you have anxiously awaited. Problems with the Mega ST2 and 4 have been eliminated, the Atari clock, calendar, and date function, and you can partition your hard drive up to 12 times, as well as using GEM assignments for the letters of the partitions. But best of all, it seems to execute IBM programs faster. Though not born out by Norton Utilities' time tests, the appearance of extra speed is pleasing.

Sequel to The Mystery -- Several months ago we asked where MICROSOFT WRITE was. Final Beta test copies were out last November. The warehouse is supposedly now full of the final product with full documentation, a $129.95 price tag and just waiting to be shipped. Beta testers and others who glimpsed it in pre-release form are holding their breath in hopes that something startling has been injected back into it to make it a suitable word processor.

Protection Wars -- ProCopy, version 1.50 was released near the end of the year. Already programs are arriving from England that can not be copied by it. The speed with which the two enemy forces, Protect and Deprotect, execute their function is numbing. Updates for registered owners are available by writing or calling the company, for $13.50. The new version backs up the earlier flood of European software, the so called "biggies" in the game world, e.g MARBLE MADNESS, F-15 EAGLE STRIKE, BARDS TALE. It can not duplicate the format of DEFENDER OF THE CROWN; however it can handle the formats employed by Accolade, Microdeal, Electronic Arts, Mindscape and Microprose. The new version also automatically makes adjustments to compensate for different disk-drive speeds. When you write or call, include the serial number of your disk. (Proco Products, P.O. Box 665, Chepachet, R.I. 02814;1-800-8843-1223)

Competition for WORD PERFECT? -- WORD UP will be selling in early March. With printer drivers for the Epson family -- FX,LX,24-pin -- and the Atari 804 laser among others, it will use multiple fonts in varying sizes and styles. Those of us who were excited by TEMPEST and only wished it could be expanded into a full word processor presumably need wish no more. WORD UP does that and more. Also by early February you will be able to buy from the same company a program called FONTZ! for $34.95 which is a GEM font editor and converter. It will convert fonts to GEM from Macintosh, Amiga, Degas, and Hippo. All, of course, will be usable with WORD UP. Look for a full review in CN, hopefully in April. (Neotronics, 908 Camino Dos Rios, 1000 Oaks, CA 91360; 805-498-3840)

The Pro -- Soft Logic has put an iron mask on Deren, the developer of PUBLISHING PARTNER. He can talk only to his computer, his boss, and occasionally his family. This ends, hopefully, at the beginning of March with the release of PP Professional Version 2.0. Is it faster? Yes. Why? Version 1.03, at your key command, finds, say, the letter "A", designs a font for it, then it goes to the next letter you type. When you type an "A" again, it redesigns the font again. The new version on first design of a letter sets up a table for that and each subsequent letter. When a letter is repeated, it lifts the design right out of the table. Result? A page in two minutes; longer if you have complex graphics of course. It will allow you to group items into one graphic and then move the set anywhere you choose. Flow around text, and the ability to read raw data files are included, along with auto-hyphenation, auto-kerning, and multiple windows.

Is the Future Here Already -- Michtron's JUGGLER is out on the shelves and selling for $49.95. For those of us who believe that to graduate into the next generation of computer activity you need to have a multi-tasking, multi-user software package, the product has arrived. JUGGLER permits somebody like CN's publisher, Joe Waters, to have his BBS up and receiving articles from his delinquent authors while he works away on his Mega ST4 rushing the magazine into printable form. Now we can run as many programs simultaneously as available memory permits. Intriguing to think about; even more startling to see.

Hardware

Transputer -- The electronic Merlin that will turn your ST into a small Cray computer, the Transputer, which Atari named the ABAQ (rumours circulate they may not own the rights to the name) is being distributed in dealer kit form in February. Those of you involved with academic, engineering, CAD, and other projects requiring miraculous speed will be interested. Atari will issue you an developer's information kit for $99 which tells you everything you may wish to know about transputers and parallel processing, including the date of the transputer conference in Australia, in case you've saved your frequent flyer stubs. Kuma in England is currently selling their K-Max Transputer Development System for the Atari ST for about $1,150, this includes an Inmos T414, 256K RAM and an assembler. Atari reportedly plans to issue a developer kit in the U.S., about the time you read this, which will cost $5,000 but include a high resolution monitor. Inmost will limit its production of T414's and T800's to a flat 500. It will be a minimum of six months before software becomes available and consumer sales can begin. Atari has already developed a connector cable for the ST and the NEC XL, NEC's latest multi-sync monitor for use with the ABAQ. The 19" version sells for $2,695 with a resolution of 1280 x 960.

The Lesser Laser -- Incorrect was our report last November that the SLM804 Atari laser printer would come with a Postscript clone or emulator. It stands naked as is, with but a Diablo emulator, and requiring a machine with 2 megs of memory at a minimum. Rumours that Soft Logic had expected Atari's machine to come with Postscript and now would develop such an emulator for the 804 are FALSE. According to Shawn Fogel at Soft Logic, although they have a ready capability to do so, legal assistance would probably equal or exceed the cost of developing the clone, should Atari sign a development contract with them, which it hasn't. In the inbetween time, Blaser Star, a California company, is manufacturing a laser printer with 1 meg of memory with can be used with any computer including the ST. The JAF company is now selling it for $495 less than the 804. A Blaser Star II with 4 meg of memory will be out shortly and sell for $200 more than the $1,500 Blaser Star I. This means you can be into Atari desktop publishing for about $1,300 less than the $4,000 package Atari offers, i.e. $1,700 for a Blaser Star II, and $1,000 for a 1040 ST. (JAF, 2217 W. 109th St, Chicago, IL 60643; 312-238-4348).

Servicing the Mega's In December we cited Atari's new service policy for the Mega's. "Down time" for your machines was to be limited to a maximum of 48-hours. That meant that if the authorized dealer couldn't fix it in two days, he issued you a new machine. We may have been premature in citing that new policy, e.g. our "down time" was 644 hours or 31 days. Atari Director of Communications and "Take-the-Heat Man" Neil Harris assures us that we were correct. Anybody buying a machine from a dealer can expect that time frame for servicing, as long as their machine is in warranty. (See Hat's Off Award.) When Neil stepped in on the 29th day to solve a problem not of his making and urge that our machine be Fed Expressed back to us (and it was), he stated that part of the problem was that this was a developer machine obtained directly from Atari, implying that a dealer-purchased machine would not have been subjected to such indignities. Early Mega owners who have purchased theirs from a local dealer will find the problem may persist for them also since the $3,000 dealer repair kit is not available in all areas as yet. The high cost of the kit suggests that some dealers will forego its purchase and take their chances on being discontinued as Atari Mega dealers. Mega profit margins for dealers are high and holding there. But the cost of the repair kits not only eats up the profits from six Mega's, but at the rate Mega's are selling, could take three months. Best estimates are that less than 300 Mega's have been sold by dealers in the U.S.

The Phone That Wouldn't Answer. Guessing started a while ago, when the telltale sign, the line is always busy or nobody ever answers, showed up on Analog's number. Now it's back on again. We are pleased to report that *Analog*, a founding father of Atari dedicated magazines, and *ST-Log* are alive and considerably enriched with Vitamin M, as a result of having been bought by Publisher Larry Flynt. The current management of the magazine including former publisher, Lee Pappas, will reportedly stay on and continue to direct the magazine with a free hand. Subscribers who have missed their last two issues can expect to see the March issue on the newsstands in early February. The two back undelivered issues are stacked in a warehouse. At present it is unclear if subscribers will simply receive their copies of those or have the option of two additional issues added at the end of their subscription term. With new funding the magazines should be better than ever.

Hats Off Award -- This months award goes jointly to Atari and to *ST Informer*. *ST Informer* for continuing to turn out an ST news magazine of fine quality, indeed. The high-eye appeal is matched by articulate, informative, varied articles of interest and value. Publisher Rod MacDonald and Editor Mike Lindsay and their staff deserve a "Well Done!". Atari's award is for deciding to change their warranty policy from 90 days to one year for both ST and Mega ST's. Date of implementaton to be announced. No decision yet on laser printers.

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ATARI SCUTTLEBITS

By Bob Kelly

Atari! What price glory.....

To say the news about the home/small business computer market has been dull over the past few months is an understatement. Atari's new computer product announcements hit the street like a feather dropped from a ten story building. In other words, the national news media ignored Atari's press releases and, of course, there was no impact on Atari's stock price. On the other hand, while Atari has NOT advertised it's 16 or 8 bit home computers, it has been advertising. The game machine market has been booming and Atari once again is a leader. However, Nintendo, the primary competitor, did not care for the message transmitted to the public by Atari.

Atari vs Nintendo - For Real!

Nintendo of America sought a preliminary injunction against Atari for unfavorably comparing in its commercials the Nintendo's game system with the XE video game system. Nintendo was of the opinion that Atari commercials mislead consumers into believing:

1. Atari's game system played hundreds of games while Nintendo played only 80.

2. Atari's system played both disks and cartridges while Nintendo offered only cartridges.

According to Nintendo, the facts in the case were: (1) many of the "hundreds of Atari games" were out of production/circulation, and (2) Atari failed to inform the consumer the disk drive, which had to be purchased separately, was expensive and hard to find.

The court, in December, ruled against Nintendo stating Atari may continue its advertising campaign. The advertisements did not violate the Lanham Act, a federal statute prohibiting false advertising. Atari, needless to say, was very pleased with the judge's ruling.

Incidentally, Atari, by the end of November, was sold out of the XE game system through Christmas. As of mid-January, the XE game system is available in only limited quantities on the East Coast with sales remaining very brisk. Atari plans to release/develop more game software to support sales of the XE system.

No doubt Atari has a true winner, at least for now. Glory, glory, hallelujah! However, game system sales in the U.S. are once again carrying Atari's corporate image to the public. This strategy for the U.S. market is fraught with danger. The last thing Jack Tramiel's Atari should want is to reinforce the image of a game machine company in the U.S. market. This happened with the old Atari (Warner Corporation) and we know what the results were. The largest market for computer sales in the world is in the United States and Atari is pursuing a policy which subtly encourages serious consumers to buy a non-Atari machine. The "game machine company" is a stigma which must be avoided.

Atari needs to separate game machines from its computer operations. It must be done IMMEDIATELY. My own suggestion is give much less prominence to the Atari Corporate Logo on the packaging and in the advertising. Further, advertising of the ST/MEGA computer line is a must in the U.S. market and should be stepped up in the 2nd quarter of this year. Jack, I will be happier, as will a lot of other Atari users, if there was a lot less GLORY for the Atari Logo in connection with the XE game system.

Atari vs Apple - A Possibility?

The rumor mill within the computer industry on occasion can come up with a whopper (it makes writing this column definitely interesting). One source of rumors/gossip from time to time is InfoWorld, the weekly computer news magazine. Over the past year, a news policy has been implemented by InfoWorld which stresses business use of computers as opposed to small business/home applications. As a consequence, little mention of Atari has appeared in the general columns. (Of course, this is also because they consider themselves to be serious minded. Who knows, maybe they are serious since my subscription has just been cancelled). In any event, two InfoWorld columnists are exceptions to this general policy, Jerry Pournelle and Robert Cringely who write occasionally on events impacting the Atari Corporation.

Cringely, in his January 11, 1988 column, mentioned some possible business between Steve Jobs (founder of Apple) and Jack Tramiel. It is best that I quote the column directly.

"I bumped heads with one of Jack Tramiel's secret agents from Atari. It looks like Jack has been paying very close attention to Apple, and in fact it seems he's readying a couple of 68020-based PCs that will run Macintosh software as well as ST programs. The machines are

supposed to be products of the long-rumored collaboration between Atari and Next Inc., which nobody could figure out until now.

"Fans of Russian novels take note - here's the plot: Steve Jobs, hating John Sculley for firing him and wanting to destroy Apple as an act of revenge, commissions a Mac emulator, possibly from wunderkind Andy Hertzfeld. But Steve has no extra money to build it, and he's saddled with an agreement that lets Apple see his technology before it goes to market.

"Enter Jack Tramiel, who also hates John Sculley (Jack hates everybody) and who envies the large Mac software base. Steve gives the Mac emulator to Jack, who will produce a zillion low-priced Mac clones in Taiwan, while Jack lets Steve use Atari's amazing eight-voice Amy sound chip for the Next workstation. Steve wins, Jack wins, John loses. Film at eleven."

Hey, this is far out stuff. But, how does this make David Small feel (Mr. Magic Sac)? Does anyone really believe that John Sculley will stand by and let this happen? I, for one, don't think it's likely. Talk about lawsuits! They will be flying all over the West Coast courtesy of Apple. In fact, such a course of events could even spawn a growth industry for lawyers. *[Atari spokesman Neil Harris says the Cringely story is unequivocally false. - Ed.]*

Business and the Mac

Numerous articles have been written by the national press concerning Apple and its penetration of the corporate market. While it is correct in thrust, some of what has been said needs to be put in perspective.

For 1987, it is estimated that approximately 390,000 Mac II's and SE's have been shipped by Apple to its dealers. According to Apple, about 40% of the SE's and 65 to 70% of the Mac's have been going to companies with at least 1,000 employees. This means roughly 180,000 Mac II/SE computers are in the hands of major corporations as a result of purchases in 1987 (translates into a demand of 15,000 computers per month.)

If one were to measure Mac's sales performance against total national sales for an average month, 15,000 computers quickly becomes minuscule. In fact, Apple's share of the Fortune 500 market is estimated for 1987 at 3 1/2 to 4%. By way of comparison with Compaq Computer's share of the business market, Apple is probably somewhere in the neighborhood of being 1/4 as large as Compaq's. Thus, Apple is light years away from IBM.

The fact cannot be ignored that the Mac has introduced more competition to the IBM/clone dominated corporate market. In my mind, there is no doubt that the Mac is a superior machine in terms of technical capabilities and ease of use. The economics of its purchase in lieu of an IBM or clone is, however, certainly negative. To really gain market share, Apple's Mac prices must become more competitive. Further, with the advent of Sun Computers joining forces with AT&T; Next, Inc., Steve Job's new company, introducing a new machine in 1988; and IBM's move to a Mac look-alike interface (Presentation Manager), Apple's fight for market share is certainly just beginning.

See you here next month..... Oh ...

P.S. By the way Atari, where is the 80-column cartridge for the 8 bit'ers and most importantly the software (new Atariwriter+) that was suppose to be on the market in September? November? December? etc.? Your reputation in marketing and delivering products is growing!

Editorial

(Continued from Page 4)

and has chosen an accelerated three-year program in a field completely unrelated to computers. Needless to say, we are very sorry to see Mark go, but we certainly do understand and wish him the best. If you are an 8-bit programmer and would like to pick up the mantle, let me know since I really would like to continue that column.

Now the good news. Len Pogialli, who writes our "Pieces of Eight" column, has agreed to be our 8-bit editor for 1988. Len has a fascinating story in this month's issue about a 30-store chain that uses the 130XE to control its records. He also has some new product reviews which came in a little late to make February, but which you'll see next month. Len, obviously, will need some help. If you have an 8-bit Atari, why not try your hand at telling fellow owners about your favorite (or new) programs. Even if you only have the XE Game System, remember that LOTS of Atari owners enjoy playing games and will appreciate reviews of any new titles available for their machines. It's always a good idea to check with the editor, however, before you launch into a major project just to be sure someone isn't already working on that review. Len's mailing address is 300 Stafford Avenue, Syracuse, NY 13206 (315) 437-2456. If you are a software developer and would like CN to cover your products, send review copies to Len.

There's lots more I wanted to say this month, but, unfortunately, I've already used my page (and some of Bob's) so I guess it'll just have to wait. I hope you enjoy this issue and many more in 1988.

ADVENTURES IN THE MAGIC SACDOM

By Jeff Greenblatt

FOR BEGINNERS ONLY

If you received a Magic Sac for the Holidays then you're in for a real treat. In case you don't know what the Magic Sac is, it's a device that plugs into the cartridge port of the ST that converts the ST into a Macintosh. The Magic Sac can be purchased for somewhere between $100 to $125 at most Atari dealers.

The Magic Sac was originally sold in two different versions. The version most commonly found at Atari dealers is the Magic Sac Plus. The Plus version comes with a built-in battery operated clock which can be used to set the ST's internal clock and calendar upon bootup. The other version, Magic Sac 1, is no longer being made and did not include the built-in clock. The clock operates in TOS or Magic (Mac) mode, so as long as you don't need to use the cartridge port, the Magic Sac can be left plugged into the ST all the time. Considering the cost of internal clock chips plus installation costs, the Plus version is a great buy for what it offers.

When you purchase the Magic Sac you will need two important additional items to make it work. The first is a set of Apple 64K ROMs from a Macintosh. The dealer who sells the Magic Sac can usually supply the ROMs at a nominal cost; usually between $25 to $45. Most dealers will offer the Sac and the ROMs as a package. If the dealer doesn't have the ROMs, make sure you can purchase them somewhere before buying a Sac. The ROMs are plentiful, so you shouldn't have any trouble obtaining them.

The second item you will need is a boot disk which contains the Macintosh Finder and System software. If you don't have access to someone with a Macintosh, the system software can be obtained through local Apple user groups or from information services such as Genie. If you purchase the printer driver disk from Data Pacific, it comes with the system software on it, and it's already in Magic format. So unless you bought a Translator or know someone with a Mac who is willing to link their machine up to your ST with the null modem cable that comes with the Magic Sac Plus to transfer the software, I recommend that the printer driver disk be purchased at the same time with the Sac. Besides, you will want to print using the Sac and the printer driver is what's needed if you own an Epson or compatible printer.

If you own a standard 520ST and are thinking about buying a Magic Sac, DON'T! If you already own both, have your 520 upgraded to 1-meg. I'm recommending this because when the Magic program is run on a stock 520, you are given a choice of a 128K or 256K system Mac. Since the 256K version of the Mac never made it to the retail market, some programs check memory size and assumes that if it's not 128K, then it must be 512K. Therefore, the application may bomb. This leaves you with 128K as your other choice. This size system, in my opinion, is too restrictive for serious applications. Additionally, Finder 4.1 and above was designed to run on the 512K Mac and runs erratically on the smaller 128K and 256K system configurations. Apple recommends using Finder 1.0 or 1.1g on the 128K Mac (256K too).

Now that you have upgraded your 520 to 1-meg, you can run your Magic Sac with a color or monochrome monitor. The latest version of the Magic software for use without the Translator is version 4.52 which only supports color if you have a 1-meg ST. Additionally, color will only work if you configure the system for 512k. However, if you intend to run any serious applications, a monochrome monitor is a must. I have experimented with the ST's control panel to produce the sharpest color image and have found that the following settings will produce the best overall picture quality:

COLOR	RED	GREEN	BLUE
White	7	7	7
Black	0	0	0
Red	4	0	0
Green	0	3	0

You can also adjust the brightness and contrast controls on the monitor to produce the best image possible. After you have made the settings noted above, save the desktop to your disk which contains the Magic program. If the settings were made correctly, the background color of the screen should be a very muddy green. Also make sure the control.acc file is on this disk so that whenever the disk is booted, the control panel will automatically set the background color for Magic Sac use.

As far as disk drives are concerned, double sided drives are preferred over single sided drive. If all you have is one drive, be

prepared for a lot of disk swapping. A two drive system is preferable, although there are several pitfalls that one can fall into which will cause disk swapping with two drives. This usually occurs when you have ejected the startup (boot) disk and decide to run an application from the same drive. On the other hand, if you have a hard disk, it can be partitioned to boot directly onto the Mac desktop. This by far is the most preferred way of using the Sac. The Sac literally flies when used in conjunction with a hard disk.

The System Disk (Startup Disk) usually must contain a System Folder. The System Folder for Finder 4.1, as distributed by Apple, contains six files which consumes approximately 159K of disk area. Since a blank formatted single sided disk contains 399K of free area, this leaves 240K remaining. Not too much, is it? Depending on what applications you intend to run, the System Folder can be reduced in size considerably. The six files in the System Folder are as follows:

FILE	SIZE
System.....	80K
Finder.....	47K
Note Pad.....	2K
Clipboard.....	3K
Scrapbook.....	1K
Image Writer.....	25K

The minimum System Folder needed to boot the Mac must contain the System and Finder files. So, if all the other files are trashed, this leaves 272K of free area on the disk.

The System file is needed to start the Mac and also contains resources such as fonts and desk accessories. The Finder file is responsible for file organization. It basically controls file housekeeping and is needed as an entrance and exit to applications and can not be reduced in size unless an alternate Finder is used. Alternate Finders are available in the CN library.

The System file is the largest file in the System Folder and can vary in its size. Its size is a function of how many fonts and desk accessories it contains. The System 2.0 file for Finder 4.1 normally contains 7 desk accessories and 8 fonts. Potentially, if all the desk accessories and fonts were removed using DA/Font Mover, approximately 44K of additional free disk area would be available. Then, ideally a minimum single sided System Disk could contain 316K of free area.

I'm not recommending that you immediately start stripping all the desk accessories and fonts from your system disks, the Finder won't let you do it anyway. The System file must contain at least one desk accessory and four fonts are reserved for system use which can not be removed (Chicago 12, Geneva 9, Monaco 9 and New York 12).

For most applications I recommend that the System Folder contain a printer driver such as the Imagewriter File (if you intend to print), the Finder and a System file with the Control Panel and Chooser as the only Desk Accessories. If you are using the Epson print driver, rename it to Imagewriter since some applications such as Microsoft Word 3.01 won't print properly without this name change. If there is a font that you don't care for in the System file, then remove it. Use Font/DA Mover to do this. The only problem with Font/DA Mover is that when fonts or desk accessories are removed, there is no way to recover them. You can create resource files of fonts or desk accessories as they are being removed for future use. Use Font/DA Mover to create resource files by copying them to a new file name of your choice for future use.

As you can see, there is a lot to learn about a Macintosh if your thinking about purchasing a Magic Sac or have just acquired one. It is worth it though. There are many powerful commercial software titles for the Mac that work perfectly with the Sac. On the ST side, there are some real large gaps that are yet to be filled by the commercial software available that do not compare to the speed and features offered by some of the titles available for the Mac. The power of Microsoft Excel and the full features of Macintax come to mind. So, if you already own a 1-meg, monochrome ST, for a relatively small investment you can have the best of both worlds.

Translator Update

The day after delivering my article for the December/January issue of CN, I received a Translator. It was a beta test model and it didn't work properly. Now, after 4 ROM and 4 software revisions, the thing really works. It still has a few minor bugs in it but it is a remarkable device. What other computer can boast that it can format, read and write Macintosh disks?

For those of you who did order a Translator and received it in early December, you should have received version 5.5 of the Magic Sac software with it. If all you have is version 5.4 contact Data Pacific for a free upgrade to the latest version. Actually, by the time this article goes to press (I'm already late with it), version 5.8 or 5.9 will most likely be

available which should polish off the remaining minor bugs. Another thing to check is to make sure you have the current ROM inside the Translator. To do this, remove the screws from each of the four rubber feet and slide the top off. The chip directly behind the power switch with 14 pins on each side is the chip you're looking for. This chip should have some type of sticker on it with a series of numbers plus a R15, or just a Rev15 indicated on it. If it has R14 or Rev14 on it again contact Data Pacific for the upgrade.

Now for the big question, do you need a Translator? Well, I'm gonna waffle on this one a bit. The answer is maybe. If you don't have have access to a Mac and you want to port Macintosh software over for use on a hard drive or Magic formatted disks, the answer is yes. It should be noted though that at least one dealer who advertises in CN offers commercial Mac software that has been ported over to Magic format when you buy the software. Another reason to purchase a Translator is that if you use a Mac at work and want to work at home, just carry a Mac disk home and work with it on the ST. On the other hand, if all you're interested in is using some of the excellent PD and shareware already available in Magic format, you most likely don't need a Translator.

TIPS

For those of you with a Translator, version 5.5 and up of the Magic Sac software has a reset button in it. If the computer freezes up for some reason or another, simply press the shift-undo keys simultaneously and you will be back to the Mac desktop.

New Library Disks

This month three new disks have been added to the CN Magic library; here's the rundown what's been added:

Disk M41, Radical Castle, is another of those popular graphic/text adventure games created with the World Builder program. If your interested in hours and hours of game play, this program and others like it in the library are a great value for the bucks. Be sure to read the doc file on Magic Sac use on the disk. It tells you how to turn the sound off from within the program to remove the small boxes on the screen which interferes with the text display.

Disk M42, Fonts #6, contains 15 new fonts in assorted point sizes, plus the program Font Tester which displays system fonts. The fonts contained on this disk are:

Berlin 12	Boston II 9-10-12-18-20-24
Courier 10-12	Dorza 10-12-18-20-24
MicroBoston 12-24	Highwood 10-12-14-18-20-24
MiniBoston 12-24	New York 10-20,
Palo Alto 12-24	Sparta 18-20-24
Stiletto 14-28	Symbol 9-12-18-24
Venice 14	Tatooine 10-12-14-18-24-28-36
Wartburg 18-36	Sparta 18-20-24

Disk M43, Utilities #4, contains 7 new and very useful utilities. If you have a Translator, this disk is a must. This disk contains two utilities that must be run under the HFS file management system which requires the use of version 5.5 or higher of the Magic Sac software. Here is a brief description of each utility:

DiskDup+ is a disk sector copier which is most useful for porting whole disks from Mac to Magic, or Magic to Mac formatted disks with the Translator. Disks must be pre-formatted before using this program. It even copies 800K double-sided disks in two passes.

MacSnoop 1.03 is a very powerful file/volume editor which was released in the Public Domain as a replacement for FEDIT when it became a commercial title. A fully illustrated MacWrite documentation file is included.

RamDisk+ 1.4 is the best PD ramdisk I've seen to date. It is totally configurable and even allows the choice of files to load into it and run automatically. A MacWrite documentation file is included.

ResTools 2.01 is a very powerful resource compiler/decompiler with built-in help and documentation.

Oasis 2.01 (HFS) is a totally configurable replacement for the Finder. With it, you create your own custom Mac desktop.

Font Librarian (HFS) is a replacement for Font Mover for organizing fonts. It lets you move fonts among font files, system files, and applications, with many files and fonts open on the desktop at one time.

Switch is a very short file that is designed to eliminate the nagging problem of disk swapping. Put it on all your disks with a System Folder and it switches systems to the disk it's on.

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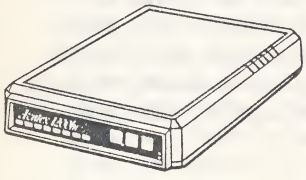

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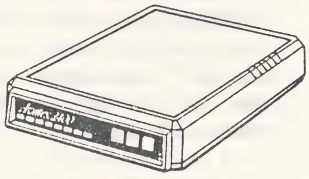

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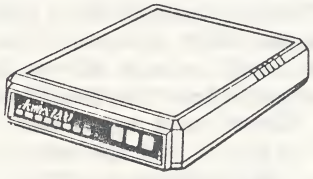

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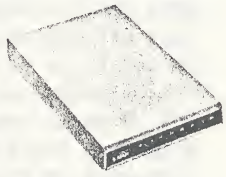

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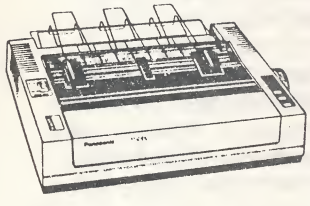

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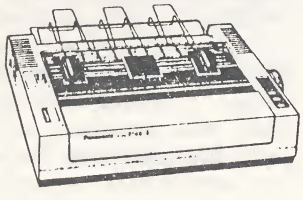
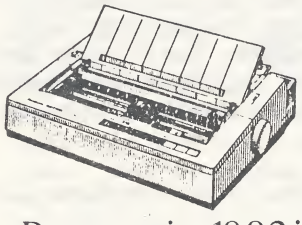


Panasonic 1091i
$199.00



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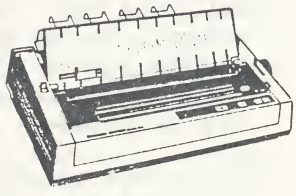

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DAVE SMALL & DAN MOORE

Data Pacific's Brothers Grin

Interview by Gregg Anderson

I was in the Denver area last month and took the opportunity to drop by Data Pacific and visit some rather well-known friends of mine, Dave Small and Dan Moore. Data Pacific (DP) is just off 6th Street and takes up most of the second floor of what used to be an Advent-Guard Art Gallery. How would I describe Data Pacific? Does the word 'Chaos' ring any bells? Without a doubt DP is one of the busiest places I've been in years. EVERYONE seems up to his or her ears trying to keep up with upgrades, developments, tech calls and paperwork (the bane of modern industry). As for hardware, I've not seen so many different types of computers in one place since I visited Atari HQ last year. 520s, 1040s, Mac's, MS-DOS clones, CPM units, HPs and a few of the strangest looking custom monsters I've ever seen.

Just for the heck of it I thought I'd do a little 'interview' with them for *CURRENT NOTES* to let our readers know what DP is currently up to and give a small insight into Dave and Dan's personalities and thoughts. Due to their busy schedule I actually had to interview them separately, so the continuity of this article may be a bit erratic.

Do you have an estimate on how many Magic Sacs you've sold?

Dave: You'll have to ask Joel (Joel Rosenblum is the other partner and business manager) about that. He and I have a deal, he doesn't do any coding and I stay out of his books. So far it's worked out great. It's almost like being married but without any of the 'fringe' benefits. Along with Joel and Dan there are two others that help make DP run. Barb manages our sales & distribution while Maureen is our resident book keeping expert. Without them this place would really be a nut house. Like the rest of us they usually end up pitching in on a lot of 'odd jobs' around the office and keep us running smoothly.

Joel: I can't really give any exact numbers, but it's well in excess of 5,000 units.

[Author's Comment: I'd wanted to include Joel in the interview, unfortunately his schedule made that impossible. At first glance Joel seems a touch 'out of place' at Data Pacific. Quieter and more reserved than either Dave or Dan he none the less shares their deep love of the absurd and actually seems to thrive on the constant chaos and insanity that's Data Pacific. Joel is very much the 'other half' of DP, the half that keeps the books balanced, directs the company and somehow manages to make ends meet each month.]

Can you tell us a little of your background with Atari for those new to the Atari system?

Dave: I started working with the 8-bit Ataris in 1980, when I was working for Control Data. I learned all I could about the machines and started writing articles about how the Atari worked in '81. I did a lot of articles for the old Creative Computing magazine and a few others. I got my first ST in June of '85. I started working on the Magic Sac in November '85 and solved the last 'theoretical' problem in September '85. By February '86 I had a working version of the Sac going.

Dan: I've been with the Atari line for a long time. I worked with Battery Included's PAPERCLIP word processor and Synapse's SYNFILE data base for the Atari 8-bit system. Unfortunately, both those companies have since gone under.

Dave and I have done a number of utilities for the ST, with the 'Twister' disk-formatter chief among them. You may also find my name on some of the older 'Antic' PD disks.

What was the reason for your doing the Magic Sac? What triggered the "let's do a Macintosh on the ST" idea?

Dave: Well, I already knew something about the Mac and one day the question just 'popped' into my head. "Why not? Why can't the ST handle Mac material?" I kept trying to find reasons why it couldn't and reasons why it could. The 'could' list got pretty long while I couldn't find any reason why it shouldn't work other than one address variable, which later turned out relocatable. It was a LOT of work of course, over 22,000 lines of code, but I proved it could do it.

When you started writing the Sac, did you envision a commercial product or was it one of

those 'what the heck, let's see if I can do it' things?

Dave: The first ST I owned exploded when I turned it on, seems there was a capacitor wired in backwards. You know; plug in, turn on and BOOM!!!! At any rate there just wasn't any software out then and all you could do was play with the desktop icons and windows. This just wasn't enough to keep my interest so I sold it to Dan Moore and forgot about it for a while. Then I went to Comdex in November and ran into Joel and told him I was thinking about making the ST run Mac software. Joel said he was interested in helping with it and Atari got real interested when they found out about it. After that we picked up another ST (RGB) there at the show and spent the next 10 days working to get the 'sad Mac' face to appear on it.

How have your relations with Atari been?

Dave: Pretty good really. Some people at Atari aren't really hot on emulators of course, but that's to be expected. Most of the people at Atari have been really helpful. No money of course, which would have been nice but we didn't really need that.

Dan: On the whole I'm not as satisfied with Atari's support as Dave is, but for reasons going back to before Data Pacific got started. I really think they need to provide more and better support for the developers working on the ST than they do.

Would you say the Sac was more difficult to do than you expected?

Dave: Yes, there were a number of surprises. The biggest surprise was how much Mac software there was that didn't follow the rules. A lot of it broke every rule in sight.

I see you both have several Hard Disks attached to your ST's, in fact Dave's desk looks like an aircraft carrier.

Dan: Yes, I've got a touch over 60 Meg worth of Hard Disk storage, Dave is a bit ahead of me there with over 100 Meg worth of daisy chained Hard Drives. Of course I've a few extra units at home I'm not using right now that I could bring, but then we might find ourselves in a 'Hard Disk' arms race. Actually, we need that much storage for our development work since some of our data files take up over 1/2 a meg and compiling would be almost impossible without it.

What developments for the Magic Sac are you working on right now?

Dave: Well, there's not much we can do to improve the actual performance of the Sac since as far as performance and speed goes it's already the equivalent of the Mac SE. We're currently re-designing the Sac's software to take advantage of Apple's new Hierarchical file system. The hierarchical file system was one of the changes that Apple began when they went to the 128k ROMs. It's taken quite a bit of work but I fully expect to see the Sac's next major revision offer Hierarchical file support along with hard disk support. There's not much hope in getting the Sac to read and write to the floppy as fast as the Mac, this is due to the way the ST's Floppy Disk Controller handles the disks though the actual transfer rate is slightly better. It does access a hard disk much faster though. We're trying to provide 128k support for the Magic Sac in software since that's the way Apple is going themselves, maybe I'll assign that little job to Dan (BIG grin). The biggest task is making it crash-proof, though it's already pretty darn crash-proof. After all, if the Government decides to direct the SDI defence network with a Magic-Sac-equipped ST you don't really want it to crash on you.

Dan: Currently I'm working on the re-formatter for disk copies and such, after that comes Apple Laser Writer support. The problem is in getting it to work without having the real 'Apple Talk' present. What it looks like we'll have to do is make a separate program that takes your saved file and outputs it to the laser. Another problem is that Apple's system was designed to run at Apple Talk's 300k baud transfer rate, the ST doesn't have anything directly comparable to the RS-432 port. If someone would actually produce such an interface for the ST we'd be able to make a patch to route the low-level Apple Talk code to it.

Dave: Dan's been kind of an understudy for me around here, taking over for me when things get out of hand. He's the one that wrote almost all of the hard disk support code for the Sac, GEMizing and all of the Hierarchical support for the 128k support. He also handles all of the technical support calls (bless you Dan). One next project is supporting the Mac's sound system in the Sac. After that I may ask him to work on the Amiga's Sac. He just bought a new A-2000; he could work on it at home (chuckle).

Apple must be all kinds of happy with you and the Magic Sac.

Dave: I'm sure Apple has checked us out to be sure we're not making or selling EPROM copies of their OS chips. But they've found that

we're not selling ROMs and that we're very serious about keeping the Sac compatible with only their ROMs and not copies. Since then they've gotten a sort of schizophrenic attitude towards us. On the one hand we're teaching a lot of people how to use the Mac and giving them a taste of it's software, this could lead some of them to buy a Mac or Apple software. On the other hand we 'could' be taking a potential sale away from them, though realists at Apple admit that someone wanting an ST isn't going to be that interested in buying a Mac in the first place. My feeling is that we've reached a balance, DP's been here over a year now and if they really wanted to I'm sure they could have shut us down one way or another.

Dan: They sell 50,000 Mac's a month, we're just too small for them to worry about. Why should they care about us? When Atari and Amiga start selling 50,000 units a month apiece Apple will start taking notice of them, but for now I just don't think they really care.

Have you had much trouble with illegal Magic Sacs or copies?

Dave: There was the 'MacBongo' software emulator that was written in Europe and found it's way over here. It seems to be a copy of one of the earlier versions of the Sac's OS, bugs and all. Why they chose to copy that version (2.5) I don't know, and they had to put in a lot of patches and wrote out most of the Mac functions just to make it run at all. In fact it was so buggy all it did was advertise our product. I suspect, though I can't prove it yet, that it was written and released by the folks who did the 'Aladdin' Mac emulator to interfere with our sales. The Aladdin is pretty impressive looking, though I think the Sac offers much better performance and compatibility. In order to get their Aladdin to run they had to write a LOT of patches directly to the Mac's OS, this makes it a 'derivitive' work and violates Apple's copyrights like crazy. Then they went and put a really fierce copy protection on the disk.

As for illegal versions of the Sac itself or EPROM/RAM based versions of the Mac OS, I wrote a number of very subtle traps into the code (and change them with every new version of the Sac software that comes out) that check for the original Mac ROMs. I also upload upgrades to the BBSs as they come out so there's little point in pirating the software. Those traps are real handy, the Sac was written so it gives you an 'error number' if it happens to crash for any reason and those numbers tell us why it crashed. If someone calls in for support and gives us an error number that says 'I was accessing an illegal EPROM or RAM OS (and it will) then we can say "Ah Ha!!!, gotcha!!" Needless to say those tech questions don't get answered, or we tell them to mail us their Sac cartridge (with ROMs) for repairs which obviously they can't since they don't own a legal ROM based one.

Can you tell me about the Translator box?

[The box is about 4" X 6" and 1" high, it has two MIDI connectors and disk drive connectors. The interior is a solid maze of IC chips and traces. -- GA]

Dave: It's operation is rather unique, rather than trying to change the actual speed of the disk drive (which is how the Mac drive operates) it varies the read/write speed of the drive's read/write head. The end result is identical with the Mac's method, but does it without having to modify the drive itself. Actually the unit is a stand-alone computer, with it's own Z-80 microprocessor to control the transfer and disk access rates. Our present problem is a shipment of chips we got last week. We still don't know exactly what they are but they sure aren't the A/D chips we ordered. We didn't find out about them until they were installed and started feeding -2 volt spikes back on some data lines. Not quite a 'melt-down' but close. Now we're having to re-check all the chips and replace a lot of them. We should have them shipping at any moment, and would have shipped already if not for these bad chips.

How is work progressing on the Amiga version of the Magic Sac?

Dave: We've contracted some of the Amiga's Sac out to a third party here in the Boulder area. Like all serious development work it goes slower than we would like, but that's almost normal given the complexity of the coding involved. There won't be any real difference between the ST and Amiga versions of the Sac, except that the display will have to be interlaced if we want to use the higher (640 x 400) resolution the Mac expects. There may be a way around that but we won't know until we get it back. We also havn't finalized how the Sac will interface with the Amiga, it could use the Serial, Parallel or even a joystick port. One possible advantage the Amiga offers is it should be possible to read Mac disks directly without needing a 'Translator' like the ST or IBM. It seems that there is enough 'slop' in the Amiga's drive set-up to adapt it to Mac's format.

(Continued on Page 56)

Atari 8 bit has kick!

Not KICKED, but kick!

Recenty, it was said that **Diskcovery** was discontinuing the software for the Atari 800, XL, XE line. This is false. We will continue to stock software and hardware for the Atari 8 bit line. We support it.

In fact, this line of software has taken on a whole new dimension. The **XE Game System** sold very well, everywhere, at Christmas and **XE** cartridges are once again the rage. New (and old) titles like **HardBall, Midnight Magic, Rescue on Fractalus, Blue Max, Lode Runner, Ballblazer,** and **Barnyard Blaster** are in demand. So are the older titles like **Star Raiders, Missle Command,** et. al. And given the huge sucess of the **XE** system, we expect that Atari will bring out many new cartridge, as they promised,

However, we expect to see less and less Atari only, disk software to be published. This may change after a year of **XE** systems being sold, but for now we expect to see a decrease in the number of **XE** only disk titles. (Our anticipation of this change may have been the root of the confusion.)

We do anticipate many new titles over the next year which are for both the **Atari XE** and Commodore 64. In other words, the same package has the Atari title on side one of the disk and the Commodore on the other. Because of this trend, we beleive that our stock will soon have more so called 'flippy' titles than **XE** only titles. A perfect example is **Math Blaster**.

We will continue to support the Atari 8 bit computers both in hardware as well as software. The **XE Game System** and the **130 XE** computer are stocked as well as the new **disk drive**. Several printers from Atari, Star and Seikosha are in stock for the 8 bit. We normally have about 20 different types of **XE** joysticks and those hard to find cables: 850 to printer, 850 to modem and I/O cables (for going from computer to disk drive).

So contrary to what you may hear or may have read, **Diskcovery** still supports the Atari **XE, XL, 800** and **400**.

Ray Daly
President

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LIFE AS AN ATARI DEVELOPER

The Ups and Downs of Graphic Artist

CN Interviews Peter Naleskiewicz

by John Barnes

CURRENT NOTES Readers should have no trouble identifying with the frustrations of Atari users. David Small has given us some occasional glimpses into the life of an Atari developer. Your "Monitor on the World of Atari" has decided to see what life is like for some less-known developers here in the Washington Area.

Frank Sommers and I interviewed Peter Naleskiewicz, the president of Progressive Computer Applications, over a luncheon of Dim Sum and Hunan cookery in Gaithersburg, Maryland. The story of Peter's company has good times, bad times, and a hint of romance. The deep traces of frustration that came out in the telling of this story have much to say about Atari Corporation's approach to the marketing of serious computer systems.

The Early Days

Our story begins in 1984, when Peter Naleskiewicz and his fiancee, Deborah Elder, left their jobs as integrators of systems being sold to government agencies. It took a lot of courage to leave this multi-megabuck environment to develop an unheard of product for an unheard-of computer.

The Graphic Artist program that Peter had in mind was (and is, perhaps, still) way ahead of its time. A unified system to handle CAD, Desktop Publishing, and business graphics would be quite an achievement. Peter may someday write a book on the entirely new style of programming that he developed for this project.

The development tools that were available at the time left much to be desired, and this was Peter's first project in the C language. The choice of the Atari ST as the target system for this product was conditioned by the fact that it was a small market. Market penetration could be accomplished with a minimum investment and there would be an opportunity to be a big fish in a small pond. Sig Hartmann, who was in charge of Atari's software development efforts for the ST at the time, was very helpful in filling in holes in the development materials. *GRAPHIC ARTIST* was built as a TOS application because GEM was simply not far enough along in those days.

COMDEX rolled around in November of 1985 and PCA was invited to showcase their product in Atari's exhibit space. Peter put in a lot of "all-nighters" to get a demo package ready. This was still not a real product. By January of 1986 orders had started to roll in. Delivery schedules kept slipping, a problem that was to bedevil PCA from day one. On April 12, 1986 they shipped version 1.0. Peter and Deborah were married the next day and skipped off to a Bahamian honeymoon and recovery from the "all-nighters".

The Middle Era

There was trouble almost immediately. Version 1.0 was really not the product that had been widely advertised. Some of the truly advanced features were missing and the price, at $495, was way out of line in the Atari marketplace.

A "stripped out" version was put out at $200 (list). This was version 1.50. It was well enough received and Peter and Deborah were very pleasant in responding to the calls for support. There were plenty of bugs, but by October of 1986 they had issued version 1.52 as a free update to registered users. Most of the really annoying bugs were gone.

Add-on products, in the form of a Font Set and a Font Editor, became available at about the same time. At this point Graphic Artist was a mature product, and people began to formulate wish lists for a version 2. About 2000 copies were sold, just about enough to break even.

Peter kept himself occupied with a couple of little projects, like an electronic symbol library and a set of ST diagnostic routines. The latter was actually a hard project because the system support for the ST still has lots of holes.

Winding Down

Early in 1987 the competition was snapping at Peter's heels. Atari desk top publishing, computer assisted drafting, and business graphics were busting out all over. Graphic Artist was beginning to look a little frayed

around the edges. The European market was effectively closed because someone had pirated Graphic Artist there, although there is nothing that can be proved. This market is tough to deal with in any case because it is acutely price conscious, with a high level of technical awareness.

The cash needed to go up against the big boys was not forthcoming and the credit card debt was starting to pile up. The great computer recession of 1987 got under way. The Atari market was hit especially hard, principally because of a lack of presence.

Cash Flow Dwindled To Nothing

By August of 1987 Atari Corp had developed an interest in Peter and Deborah. Negotiations were under way to hire them and place them at Sig Hartmann's right hand for the big push into the business market. Atari Corp was going to market the Graphic Artist. [Ed. Comment: There is some indication Atari was considering developing it, unbeknowns to Peter and Deborah, into their own DTP porgram.]

Peter and Deborah had a contract on their house and were wrapping up PCA to prepare for their move to Sunnyvale. On the Tuesday following Wall Street's own Chernobyl Monday meltdown the folks in Sunnyvale were moping around the office. Atari stock had just taken a beating and the Corporation's natural timidity asserted itself. Atari notifed Peter and Deborah that the deal was off.

Peter and Deborah were left with no choice but to liquidate PCA under Chapter 7 of the bankruptcy code. Graphic Artist is now being marketed by someone else.

The Next Chapter

Peter retains the rights to Graphic Artist and he is looking for investors to help breath new life into his brainchild. The code is written in C, and should be portable to other machines. The basic concept still retains its novelty. The path to follow depends on the amount of money that can be raised. He feels that he could bring Version 2 to market for a relatively modest amount. A lot of the work on features like improved font handling and support for more modern print devices has already been done. An external language interface would be an exciting development.

Porting the code to the IBM world and penetrating that market, although entirely feasible, would cost considerably more because the advertising costs are much higher and there would be more development work. Nonetheless, there is money to be made there, and the rewards would be higher.

The window of opportunity for an individual entrepreneur is, however, closing rapidly because of cutthroat price competition.

Lessons Learned

In doing this story CN gained interesting insights into Atari Corporation and its prospects. A dominant theme is an unwillingness to spend money. There is simply not enouogh staff to provide the assistance developers need. Atari cannot expect to get the name recognition they need to get into the business market without heavy advertising expenditures, particularly on TV. On the technical front Atari has no problems. Marketing is another story, however.

"Power without the Price" has given Atari excellent penetration into the home market and the European market. There is some hope that this can appeal to the small businessman who makes his own decisions independent of a corporate mentality. Big Business finds it more important to keep one's ass covered than to worry about buying cheaply. Training costs and replacement down time are also important here.

Atari's emphasis on cheap software is probably counterproductive in the long run because it keeps the market from being attractive to developers with financial muscle and there is not enough margin to let small developers climb out of their startup holes.

There has already been some shakeout and Peter sees more "developer dropoff" as they find other markets more enticing. Big outfits like MichTron and Electronic Arts will probably do OK. The Atari market as we know it is likely to do a long, slow, fizzle.

We have emphasized the people side of this story because it is becoming evident that glitz, glamor, technology, and hype are not enough. The creative side of the computer business will be driven by the hopes and dreams of flesh and blood mortals for a long time to come.

CN's reporter dug up this story mainly on a hunch that certain things were not what they appeared to be. The number of elements that finally came out was truly fascinating. There are other developers in the Washington Area and we hope, from time to time, to bring you some of their stories.

CLOSE ENCOUNTER WITH THE COMPUTER

by Victoria Hsui

I've always been wary of things that look technical, especially ones that have a resemblance to machines. This is probably the effect of a childhood which approached anything machine-like with respect, treating anything mechanical as inscrutable objects endowed with a mystery which could not be unravelled by a child. Those were the times which saw the beginnings of the telephone, radio, and electronic clocks. Those were the days when the radio was a status symbol. I had always wondered about the voices that came out of the little box - the marvel of it all. I could imagine so many little men, and perhaps a few women, all cramped up inside it. No wonder the little box with its many knobs and buttons held a special significance in my life - a significance which told me to treat it with awe; not to touch or tamper with it on peril of some dire consequence.

"Scared of the computer?" Helene asked in disbelief. "But that's ridiculous," she chimed when I could find no word to explain myself. How could you explain yourself to your thirteen-year-old daughter, a product of the 80's, weaned on space-age gadgets? "My computer is beautiful. It's my best friend," she had to add.

"Your best friend is someone/something I don't want to touch. I am not interested in him/her/it," I wanted to retort, but held back these words lest the gap between mother and daughter was driven to its limits. Within, I was envious of her facility with the computer. Computer language came like a second tongue to her; to me, it might just as well be Timbuktu. She spilt it out anywhere, anytime, and with whoever spoke the same language. She even talked computer in her sleep. I felt awkward, quaint, antiquated.

But why feel inadequate? Isn't vintage better than new wine? Aren't antiques more valued than those modern pieces? There must be cogent reasons why people hanker for the "good old days". So I lived in blissful oblivion, content that my pencil and pen were always there when I needed to write, and my typewriter ready and willing when the formality of the occasion demanded it.

The inevitable tide of change had to push on one from all directions, encroaching on one's sensibility at all times. It was hard to be a lone fighter. I saw computers everywhere. I heard about it from every mouth. I picked up some reading material and there was invariably something on computers. Technical advancement must be better than the aesthetic value of antiques and old wines. Otherwise why should people go for it. A nagging thought began to bug me: catch up or be left on the wayside.

I mustered up just enough energy and will-power to approach the computer. But my initiation into the mysteries of the computer was not systematic or well-planned, to say the least.

It all happened within the last year or two, my encounter with the computer. Fresh from Singapore, I was assigned the task of writing my professor's bibliography on the Macintosh. At this point in time, I had not yet ventured to touch a computer, although my children owned one on which they spent hours of tension-filled "fun" playing computer games. My professor knew my state of preparedness where the computer was concerned. He offered to teach me the computer, which I accepted with a sense of relief, not knowing what to expect. At last I would get to learn the computer. It was with great anticipation that I sat in front of the T.V., the typewriter, a mouse, some boxes in which I put a flat thing called a disk. The lesson lasted ten minutes. He must have told me that the typewriter was the computer and the T.V. was the monitor. The mouse didn't look like the animal, so I knew there must be some other use. At the end of the ten minute lesson, I was no nearer to understanding their uses, and still called the typewriter the typewriter, with keys that had magical properties apart from what traditional typewriters were able to execute.

What I learnt from the lesson was that there was this mouse which you clicked when you wanted to do something. There was also the menu on which what you wanted the computer to do was written. Why did they use frivolous names like mouse and menu? It was incomprehensible. Jarring and inappropriate, especially when the computer was supposed to be technologically advanced. I tried to suspend my disbelief. I had to learn enough to get something on paper. "Click this when you want to write. Click that when you want to save. Always save a few times when you are writing. Never touch this on the

disk." His words and actions were well synchronized. I scribbled furiously, almost with religious fervor. Then he left me. I felt abandoned. But work was work, there was no time for feelings.

I started writing, one eye on the screen and one eye on the paper on which the commands were written. Letters, and then words appeared on the screen. Not bad. More words appeared, then lines. I was proud of myself. Not bad, for all your fear of machines, I said to myself. The cursor blinked on, goading me to carry on writing. Then it had to happen. It invariably happens, as I learn later, that when you are just at the peak of some writing, the computer will decide to play some trick or become uncooperative. Blame the computer, if you will. But this time, and for many times after that, it was probably my own fault. Not knowing how the computer worked and made over-confident by initial success, I must have pressed the wrong commands. The computer responded with some atrocious reply. I had to ask for help, not from the computer, but from people around me. Mercifully, willing helpers pressed some keys and got me back to where I left off. They didn't explain how or why they did what they did. Three more jams, and I was left to suffer in silence. One-quarter of my professor's bibliography completed, I called it quits and never got to see the printed version of what I had written.

The second episode happened soon afterwards. My sister and brother-in-law, ardent fans of the Atari, presented my family with an Atari computer, together with disk drive and printer. As a graduate student, I needed to write term papers and other academic materials. Accordingly, I went to Washington, D.C. for a lesson in computer from my sister and brother-in-law.

It was a two-evening lesson which involved communicating the basics of word processing to an uncomprehending student. After my rather disastrous experience with the Macintosh, I had to switch gears and tune myself to a different system with completely different commands. I kept hankering after the virtues of the mouse. It was much easier to use, and at least one could just click what one wanted on a menu which was comprehensible to an English speaker. With the Atari Letter Perfect, commands were harder to remember, being made up mainly of numbers which one pressed with the Control key. My brother-in-law began teaching me. He tried to make things as simple as he could, but he probably over-estimated my ability to absorb technical things. After an hour's coaching which included formatting and printing and making copies, I could not be trusted even to boot the machine. Of course he couldn't scream at me like a sister could, and so the task of translating muted exasperation into vocal reality was transferred to my sister.

Lily knew me better, for after all, we had grown up together. She knew my aversion to machines and my aptitude where these are concerned. So she started from scratch, slowly and painfully leading me through each step of the way. Dutifully, I practiced each step, scribbling commands on scraps of paper for future reference when my coach and guide would be 250 miles away when I returned to New York. After the two evenings, I absorbed just enough to be able to edit and save on the computer. Lily tried to teach me to format and print, but I subconsciously resisted. I refused to boggle my mind with more advanced tasks.

Back in New York, I felt confident enough to write my qualifying paper for certification as a doctoral candidate on the Atari. I would actually be writing a piece of my own on the computer. Words flew, ideas flowed, and I became almost addicted to the computer. Freed from the need to be precise in expression and correct in syntax and spelling that using a typewriter demanded, I felt at ease concentrating mainly on ideas. There was a sense of being released from the constriction which a concern for stylistic and grammatical precision had imposed on my writing. It was the flexibility of the computer as an editing machine that particularly appealed to me, and I loved to see the screen fill up with words.

My story had a happy beginning but an unhappy ending. After hours devoted to writing my paper, the inevitable had to happen. The substance of tragedy in computer use had to happen to me. One week before my qualifying paper was due, the disk drive broke down and I could not retrieve any information on my floppy disk. I did not have a printed copy for I had refused to learn enough from my sister to be able to make one. I could not bring myself to touch the computer for months after this.

The third episode, probably not the final one, in my history of computer use involves attendance at the TU4049B Computers and Writing course at Columbia University. People had told me about the IBM network. But little did I realize how mind boggling an encounter with the network system could be, especially if one did not already have a grasp of computer basics.

There were students at various levels of preparedness and experience with the computer.

(Continued on Page 26)

ATARI'S SMALL MIRACLES

By Mark A. Brown

Welcome back to Atari's Small Miracles, the column of programs for the Atari computer. This is the last time this column will appear in this newsletter, or anywhere else for that matter. As I get more and more involved with other aspects of my life, the Atari side of me has been slowly pushed aside. A disk or two of Atari's Small Miracles' programs should work their way into the *CURRENT NOTES* library sooner or later, and I will try to catch up to the extreme backlog of mail I have crowding up my computer shelves. I am deeply indebted to all of you: second hand readers (those who catch it in syndication) who have made the columns and programs as popular as they are, *CURRENT NOTES* readers who make up the core of the column's fans and contributors, and most of all to those who have sent in ideas, programs, and tips. To all of you I am deeply grateful for making a small time hacker feel good about the green-screen-lit nights spent in the back room. A special thanks to Joe Waters, the editor of *CURRENT NOTES*, for putting up with missed deadlines, columns approaching illegibility, and just for letting me try my hand at writing. The fears and trepidations I got when he first told me to try my hand at a column have almost worn off.

Anyway, this last month is appropriate: I have had several programs just hanging around my disks for some time now. These were so strange that I seriously doubt if I could have ever fit them in a column with others and said it was a "theme" column. This is their month.

GR10TEXT

This program is for those of you who are frustrated with the GTIA chip: you love the number of colors you can access in the graphics 10 mode but miss the fact that you have no text window. What this program does is set up a graphics 8 screen (which has the same memory requirements as a graphics 10 screen), pokes location 87 with a 10 to make the computer think it is in that mode, then fools around with location 623. Try poking a 64 or a 192 there instead of the 128 and you'll get graphics 9 and 11 respectively. This is important: this is what converts the graphics 8 screen (i.e. background color and dots) to the GTIA graphics modes.

After all that, what has been accomplished is a graphics 10 screen with a text window ... that you can't read. So a display list interrupt is set up to convert the bottom four lines of the screen back to normal text. We now have a multicolor screen and a four line text window at the bottom, just what we set out to do.

```
10 GRAPHICS 8:POKE 87,10:POKE 623,128:
FOR A=0 TO 8:READ B:POKE 704+A,B:NEXT
A:DATA 0,72,152,182,2,214,14,26,102
20 FOR A=0 TO 79:COLOR INT(A/10)+1:PLO
T A,0:DRAWTO A,191:NEXT A:POKE PEEK(56
0)+256*PEEK(561)+165,143:POKE 512,0
30 POKE 513,6:FOR A=0 TO 25:READ B:POK
E 1536+A,B:NEXT A:POKE 54286,192:POKE
82,0:LIST
40 DATA 72,138,72,169,0,162,10,141,10,
212,141,27,208,141,24,208,141,26,208,1
42,23,208,104,170,104,64
```

BINARY

This is an example of my programming interests: TINYFONT, a program to edit the internal character set, has fascinated many people and several have requested expansions. (For a full-blown character set editor I still point you to ElfFont, a program that roams BBS download sections and will probably be included in the *CURRENT NOTES* ASM library disks). I got a letter requesting a load/save function only two weeks after publication; if you remember, it took significantly longer to actually write it. Several MONTHS after TINYFONT was published, I got a request to do something much more difficult: to print the characters out in expanded form to the printer so they could be cut out and rearranged on paper. That was written that night. Anyway, it was such an esoteric program that it really couldn't be useful to many people. Therefore it was saved until now.

When the program asks you for a file name, it means the file name of the font. This file should consist of no more and no less than the 1024 bytes it takes to make up a character set. TINYFONT with the load/save expansion save fonts this way. It will then ask you if you want it to be in Antic 4 text mode; if you know what this means and desire it, enter 1 for yes. Otherwise enter a zero here. Finally, it will ask you where to put it. Type a "P:" and hit enter for the printer; if you have an 80 column capability you can see it on the editor ("E:").

Then let'er rip: it will print out in a neat format all the characters with data in them in groups of 8 across the page. Above each character printout is a number: this is the number of the character in the set (i.e. 0 for space, 1 for exclamation point ...). The final printout will be a useful record of the characters you have created.

```
10 ? "Input the file to print out":DI
M A$(1024),B$(10),C$(881):INPUT A$:OPE
N #1,4,0,A$:FOR A=1 TO 1024
20 GET #1,B:A$(A,A)=CHR$(B):NEXT A:CLO
SE #1:C$=" ":C$(880)=" ":C$(2)=C$:D=0:
? "Is it ANTIC 4 (0/1)";:INPUT AN
30 ? "Where should I send the data?":?
 "(E=the screen,V=Video 80,P=printer)"
:INPUT B$:OPEN #1,8,0,B$
40 FOR C=1 TO 1024 STEP 8:POKE 53279,0
:IF A$(C,C+7)="♥♥♥♥♥♥♥♥" THEN 210
50 D=D+1:C$(D*10-9,D*10-7)="   ":C$(D*
10-6,D*10-6+LEN(STR$(INT(C/8))))=STR$(
INT(C/8))
60 C$(80+D*10-9,80+D*10)="+--------+":
FOR B=0 TO 7:A=ASC(A$(C+B,C+B)):B$="|
      |"
70 IF A>127 THEN A=A-128:B$(2,2)="#"
80 IF A>63 THEN A=A-64:B$(3,3)="#"
90 IF A>31 THEN A=A-32:B$(4,4)="#"
100 IF A>15 THEN A=A-16:B$(5,5)="#"
110 IF A>7 THEN A=A-8:B$(6,6)="#"
120 IF A>3 THEN A=A-4:B$(7,7)="#"
130 IF A>1 THEN A=A-2:B$(8,8)="#"
140 IF A>0 THEN A=A-1:B$(9,9)="#"
150 IF AN<>1 THEN 190
160 FOR A=2 TO 8 STEP 2:IF B$(A,A+1)="
 #" THEN B$(A,A+1)="++"
170 IF B$(A,A+1)="# " THEN B$(A,A+1)="
**"
180 NEXT A
190 C$(160+80*B+D*10-9,160+80*B+D*10)=
B$:NEXT B:C$(800+D*10-9,800+D*10)="+--
------+":IF D<8 THEN 210
200 D=0:C$(881,881)=CHR$(155):? #1;C$:
C$=" ":C$(880)=" ":C$(2)=C$:E=E+1:IF E
=5 THEN E=0:? #1;CHR$(12):REM TOF
210 NEXT C:IF D<>0 THEN ? #1;C$
220 CLOSE #1:END
```

ROTGRAPH

This is a variation of a program that appeared a few months ago: one that graphed equations. That program didn't work very well as it was printed. Okay, it didn't work at all. Clever readers figured out the relatively simple problems with it (all involving special control characters), so I won't go over that here.

Instead I give you here the same program ... with a twist. Again, you type in the formula in terms of X (examples: 4*X/(X*X+1) , LOG(X) , X^0.5), but then you enter another parameter: the rotation. Do this in degrees (not radians). Enter zero first to see what the graph SHOULD look like, then re-run the program and enter something like 45, 180, -93 or some other strange number. Strange and wondrous things will happen.

```
10 DEG :? "Y=";:DIM A$(120):INPUT A$:
? "↑↓50 Y=";A$:? "POKE 842,12:GOTO 20
":POSITION 2,0:POKE 842,13:STOP
20 R=0:? CHR$(125);"Rotate the graph a
t what angle?";:TRAP 30:INPUT A:IF A<>
0 THEN R=1
30 GRAPHICS 22:POKE 708,15:COLOR 1:FOR
 X=5 TO 150 STEP 10:PLOT X,45:NEXT X:F
OR Y=5 TO 95 STEP 10:PLOT 75,Y:NEXT Y
40 PLOT 5,0:DRAWTO 145,0:FOR X=-7 TO 7
 STEP 0.02:COLOR 0:PLOT 75+10*X,0:TRAP
 80:COLOR 1
50 REM ***FORMULA HERE***
60 IF R=0 THEN PLOT 75+10*X,45-10*Y:GO
TO 80
70 PLOT 75+10*X*COS(A)-10*Y*SIN(A),45-
10*X*SIN(A)-10*Y*COS(A)
80 NEXT X:FOR A=1 TO 2 STEP 0:IF PEEK(
53279)=7 THEN NEXT A
90 RUN
```

PIXLAVG

This program looks like a real pain to type in; it is. If it makes you feel any better, it isn't that long and mistakes don't lock up your computer. This program shows you a very bad example of a technique called pixel averaging. This is a method of smoothing out the jagged edges you see in lines drawn by a computer. I say this is a bad example because I like the un-pixel averaged picture better, but the technique is sound.

The averaging process is relatively simple: all that goes on is that the colors surrounding the pixel in question are all added together and than divided by 8 (their value is averaged). The original pixel value is then averaged with this number to give the pixel a new value, a color created with the specific intent of making it blend in with its surroundings. Just for the record, the original program I got this from added ALL the values and divided by 9. This is simply a different technique, and I suggest you try it just to see how it looks. All that should seem confusing: type in the program and you'll see what I mean.

```
10 GRAPHICS 9:FOR I=40 TO 79:FOR J=I T
O 79:COLOR I+J/4+4:PLOT I,79-J:PLOT J,
79-I:PLOT 79-J,79-I:PLOT 79-I,79-J
20 PLOT 79-I,J:PLOT 79-J,I:PLOT I,J:PL
OT J,I:NEXT J:NEXT I:FOR Y=1 TO 94:FOR
 X=1 TO 78:LOCATE X-1,Y-1,C:LOCATE X,Y
-1,Z
30 C=C+Z:LOCATE X+1,Y-1,Z:Z=Z+C:LOCATE
 X+1,Y,Z:C=C+Z:LOCATE X+1,Y+1,Z:C=C+Z:
LOCATE X,Y+1,Z:C=C+Z:LOCATE X-1,Y+1,Z
40 C=C+Z:LOCATE X-1,Y,Z:C=C+Z:C=INT(C/
8):LOCATE X,Y,Z:C=C+Z:C=INT(C/2):COLOR
 C:PLOT X,Y+95:NEXT X:NEXT Y
50 GOTO 50
```

HEXDATA

You thought you'd finally escaped the endless tirades and admonitions I've let fly in this column about how I would like to see more people contribute, eh? Just because this is MY last column doesn't mean that quality type-in programs for the Atari have to end. I fully expect to see programs from all of you on the CURRENT NOTES desk by the 10th of the month.

And to assist you all I hereby give you a very useful program: HEXDATA. It will convert any file into a series of hexadecimal data statements complete with line-by-line checksum, overall checksum, and even a program at the beginning to read it in. Although mostly meant for (large) machine language files compiled on disk, I am sure you will find many creative uses for it. MLMENU a few months back was put in the column using this program.

```
0 DIM H$(16),A$(20):H$="0123456789ABCD
EF":? "{CLEAR}File ?";:INPUT A$:OPEN #1,4,0,
A$:E=0:FOR L=100 TO 32760 STEP 10
1 ? "{DOWN}{DOWN}{DOWN}{DOWN}{DOWN}{DOWN}";L;" DATA ";:C=256:FOR A=1
 TO 45:TRAP 3:GET #1,B:C=C+A*B:? H$(1+
INT(B/16),1+INT(B/16));
2 ? H$(B-16*INT(B/16)+1,B-16*INT(B/16)
+1);:NEXT A:? ",";C;E=E-C:? "NEXT L":P
OSITION 2,0:POKE 842,13:STOP
3 IF A<>1 THEN ? ",";C:? L+10;" DATA "
;:E=E-C
4 ? E:FOR A=0 TO 9:? A:NEXT A:? "POKE
842,12":POSITION 2,0:POKE 842,13:STOP

5 REM
6 REM
7 REM
8 REM
9 REM
10 DIM A$(90),H$(23):H$="@ABCDEFGHI:::
::::JKLMNO":? "{CLEAR}Data check, hold on":E
=0:FOR L=100 TO 32760 STEP 10:C=256
20 READ A$:FOR A=1 TO INT(LEN(A$)/2):G
OSUB 80:C=C+A*B:NEXT A:READ B:IF C<>B
THEN ? "Err, line ";L:? :LIST L:STOP
30 E=E-C:IF A=46 THEN ? CHR$(156);L;"
ok . . . ";:NEXT L
40 READ C:IF E<>C THEN ? "Overall chec
ksum not correct":? "Check lines and r
e-run":STOP
50 ? "All data correct":? "File to wri
te data to ?";:INPUT A$:TRAP 33333:OPE
N #1,8,0,A$:RESTORE
60 FOR L=100 TO 32760:READ A$,A:FOR A=
1 TO INT(LEN(A$)/2):GOSUB 80:PUT #1,B:
NEXT A:IF A=46 THEN TRAP 70:NEXT L
70 CLOSE #1:? "File done.  Enjoy it!":
END
80 B=(ASC(H$(ASC(A$(A*2))-47))-64)+16*
(ASC(H$(ASC(A$(A*2-1))-47))-64):RETURN

90 REM Type data lines CARFULLY!
```

And th-th-that's all folks! I greatly appreciate all the support I've gotten for this column, and I wasn't kidding: I hope to see all of you writing programs and sending them into Current Notes. Send them to: Joe Waters, 122 N. Johnson Rd., Sterling, VA 22170. And you'll be hearing from me again!

* * * * * * * * * * * *

CLOSE ENCOUNTERS

(Continued from Page 23)

It was probably difficult for the instructor to pitch the instructional pace at a speed suitable for all. So she chose the fastest route. I felt like a non-swimmer abandoned: left to sink or swim. I struggled and did manage to keep my head afloat.

At the end of the course, I learned a few things. It was a good experience working with other novices on the computer. I finally have gained some confidence in myself as a computer user. Perhaps this was how all those experts in computer software and hardware started. A little knowledge is a useful thing. At least I will no longer pretend to be deaf when computer literate people begin their jargon about networks. This view is held despite the fact I did not master the art of SAVING what I had written on the A> drive. The little of my original paper that I managed to save, appeared in paragraph 1 of this paper. The rest had long "disappeared into the electricity".

Editors note: This article was re-typed on an Atari ST by the author's still suffering sister.

PIECES OF EIGHT

By Len Poggiali

LEFT HOLDING THE ATARI

Recently in the computer section of a B.Dalton book store, I stood beside a woman and her teenage son as they looked in vain for Atari XL/XE software. Immediately I felt a strong kinship with these two. I remembered the first time I had realized that Dalton, Sears, and so many other retailers did not carry software for my 800XL. I recalled how it first felt to be a second-class electronic consumer, to be left out in the computer cold, and to be taken for a silicon ride.

After five minutes with only a Mastertronic or Cosmi flippie disk to show for their trouble, the pair stormed out of the store with the mother shouting, "When everyone was buying VHS, I got a Beta; everybody has a Commodore, and stupid me, I bought an Atari."

I would like to have sat her and her son down and explained to them why they had not made such stupid purchases (I too own a Beta); to have told them that there were others of us who had picked what we considered to be not only the most affordable but possibly the best eight-bit machine on the market, and that nothing had happened since then to shake our belief in that fact; to have advised them on how to go about buying software through the mail; to have told them so many things.

Something warned me not to waste my time and energy. Perhaps it was her tone of voice; perhaps it was that she had cursed Atari and not B.Dalton. Whatever the case, I concluded - perhaps unjustly - that here were Atari owners who had chosen their computer solely for its price tag.

One of the reasons why Commodore controls a good deal more of the 8-bit market than Atari is due to that company dropping its prices before Atari did. Since then, even though Atari's prices are cheaper than Commodore's, the former has not been able to regain the lead in the American market. There are some very simple reasons why this is so. Those who bought Commodores for price only either still have their machines, purchased other Commodores in order to keep their software compatible with their hardware, or realizing that Commodore wasn't offering the support or the compatibility they wanted, have "stepped up" to Apples or IBMs. I doubt that many have purchased Ataris.

Since Commodore took so much of the pie before Atari got back to the table, there are fewer Atari owners out there, and therefore fewer who might be in the market over the next few years looking for their second computers. Naturally some of them are and will be buying STs and 130 XEs; in some instances quality will out even when the support is not there. Other prospective buyers, however, having been burned once by a "good buy", will be looking for a "safe buy" from among the Apples and IBMs on the market.

A very dear friend of mine will be purchasing an Apple IIGS this month at a cost two times that of a comparable Atari. He will not be doing so because he believes Apples are superior to Ataris; he doesn't. He will be doing so because he believes that Apple stands behind its product through its servicing; by influencing third-party software vendors; by improving its line of 8-bit machines while retaining compatibility with its earlier models; and, most importantly, by giving real emotional and practical support to its entire hardware line; not merely its newest models.

The woman in the B.Dalton might have been right after all. Atari is to blame for leaving her and so many other first-time, price-conscious computer owners out in the cold. Atari would have served them better by charging them a bit more for their superior product, and by providing the proper support this superiority warranted.

* * * * * *

After completing this article, I discovered that owners of 8-bit Apples also were complaining in print about the inferior support their machines were receiving from Apple. If this is true, then they have my sympathy. Apparently more than one computer manufacturer feels that ushering in its new 16-bits requires ignoring the old 8-bits. This type of corporate myopia eventually will come home to roost in the form of loss of buyer loyalty.

PD GEMS FOR THE 8-BIT

By Alan Friedman

DESKTOP DOS

Want to make your Atari XE/XL work like a ST? Then get Demo Disk #5, DESKTOP DOS. Actually, this is not a DOS but a Gem Operating System (GOS). This GOS is very similar to the operating system used on the Atari ST.

When the disk is first booted up there is a pull down menu across the top of the screen. The pull downs are labeled DESK, FILE, VIEW, OPTIONS, and G.O.S. More on these later.

On the left side of the screen are icons of three disks and what looks like a page of text. Access to these icons and pull downs are done with a joystick in port 1. By moving the arrow around the screen with the joystick you can place it over an icon or pull down. If you put the arrow over the "A" on the top disk and press the fire button twice, a window will open in the middle of the screen with the directory of the disk in drive #1. To select a file, move the arrow over the file you want and press the fire button once. This will cause the file to be highlighted. If you want to run this program press the fire button a second time. A command window will appear on the screen asking if you want to open this file. By placing the arrow on the Y of the "Yes" and pressing the fire button again the program will run.

If you want to DELETE, RENAME, PROTECT, UNPROTECT, or COPY the file, you need to move the arrow to the top of the screen and place it over the word "FILE" and then press the fire button. This will bring down a window with the above options. Once again place the arrow over the first letter of the option you desire and press the fire button.

From the "VIEW" window you can view or print a text file after it has been selected. If you pull down the option window you can change the screen color, text color, background color or change the disk drive icons to represent different drives. Under the "DESK" pulldown is information on GOS, desk save and desk load operations and a few other operations.

To format a disk from GOS, you click the disk icon once for the disk you want to format and use the "FORMAT" function found in the FILE pulldown. This disk deserves the popularity it has received.

SURF'S UP

Here is a fast action arcade style game that has been around for a while. So far I have only been able to get past the first screen, so I am no expert at this one. The first screen has you surfing up and down waves. You use your joystick to slow down or speed up. If you are going too fast when you go down a wave, or if you get caught in a whitecap, you will wipe out and loose a man. You also have to avoid the octopus because he can also upset your surf board. As you are surfing, you can collect various items along the way. If you surf through the entire screen and collect enough points you will reach the final bouy and go on to screen number two where you are surfing along the shoreline. Here you have to avoid wiping out and running into debree in the surf while collecting points by surfing over bonus objects. From here on you will have to consult with a more experienced game player because my surfing skills end at this level. This is not only a fun game to play but the graphics and music are very good.

THE NOISY GIANT & CAVEMAN JOE

Education disk #5 is a cute reading program with pictures and sounds. It is the perfect disk for anyone with school age children. Each page has a picture and the corresponding text at the bottom of the screen. There is no rush for either your child or you to read the story, since it takes pressing a key to turn the page.

Every page contains a picture with a small amount of animation and sound. It may be a rabbit doing flips, smoke going up from a chimney or a fire burning in the fireplace. Just enough movement and sound to keep a child's attention without becoming a distraction.

PARLOR GAMES

Another game disk that is an oldie but a goodie is game disk #5: PARLOR GAMES. This disk contains MONOPLY, YHATZEE, SOLITAIRE, BATTLESHIP, MILLE BORNES, SIMON and OTHELLO. Although I have not played every game on this disk, there are several games that I consistantly go back to play. These are SOLITAIRE, BATTLESHIP and OTHELLO. I have heard some good comments about the Mille Bornes game but have yet to play it. Since all of these games are written in BASIC they will all play faster if you run then with Turbo-BASIC.

BATTLESHIP is the old strategy game you used to play in school with pencil and paper. You located your ships on a grid and the computer sets up its ships. Once both boards are set up, you pick a coordinate to fire at the computer's fleet. The computer then fires a round and the game continues until either you or the computer has sunk the opponents fleet.

YHATZEE plays just like the non-computer version. You roll six die and try to make all the combinations to win.

OTHELLO is a very old strategy game that is also called REVERSI. You start off by placing a piece on a board of squares. The computer places a piece either above, below, to the right or to the left of yours. The idea of this game is to get one or more of your opponents pieces between two of your pieces. If you do they become yours. Once all the squares have a piece on them the winner is decided by who has the most pieces. This is a very easy game to play but a difficult one to master.

SOLITAIRE, also called PATIENCE, plays according to Hoyle. You have seven stacks of cards that you build on in descending order and reverse colors. The deck is turned over one card at a time and you can only go through the deck once. The only complaint I have heard about this game is that unlike playing Solitaire with a deck or cards, you can't cheat.

Game Disk #5 was the first PD disk I purchased, and even though the games are tried and true, it is one disk that has always managed to stay in my "Active Programs" disk file.

BBS FOR THE XL/XE

Do you have a desire to start your own bulletin board, need to have a system available so a friend can call you and upload or download files to your computer without your being there, or how about being able to upload files from your office to your home when no one is there. Well, the answer is the AMISXM10 bulletin board.

This new addition to our public domain disk library is for the XL/XE computers with the XM-301, 835, or 1030 direct connect modem. Two disk drives are preferrable, but the system can be operated with one drive. A printer is also required. The documentation on the disk is very thorough and by following the directions you should have an operating bulletin board in an hour. If you are not using an XM-301 modem you will have to build a ring detector. The plans for this simple device are also included in the documentation.

One program that is not documented is BBSFONT.BAS. This program is a custom editor for the Atari welcome page and any other pages that you want to create that use Atari graphics. You can create graphics screens in three different modes. The first uses the 29 different graphic keys that are accessed by the control key and the letter keys. Next there are two large letter generators. These allow you to create ATASCII boards with both characters and graphics. By playing with this program you should be creating great custom screens in no time at all.

130 XE UTILITIES

I have written two short articles in the past about the 320k upgrade for the 130 XE but have never published anything on how to do the upgrade. Utility Disk No. 21, 130 Upgrades and Utilities, contains the documentation not only for the 320k upgrade, but also for the 576k and 1088k upgrades. The two ramdisk programs that were mentioned in the articles are also included.

Side B of the disk contains utilities written expressly for the 130XE. These include programs that create a slide show using the 130's ramdisk and a single pass copier. Most of these programs come with documentation.

Looking for a graphics program that does hi-res drawings that includes the ability to do boxes, circles, and lines and uses the ramdisk on a XE130 computer? Well, Utility Disk No. 22: Hi-Res 130, does it all and more. This is not a multi-color paint program, but instead is a great program for doing line drawings in two colors that can include text in three different font sizes. Included on the disk are several sample drawings and complete documentation. Screens are saved in a micropaint format and can be used with any scrren dump program that uses this format.

Hi-Res 130 was originally written in BASIC amd then compiled. On side B of this disk is the basic program, so it is fairly easy to make any modifications that you desire. The compiled version runs fast enough, but if you want even faster movement of the cursor you can compile it with the Turbo-BASIC compiler and it will run even faster. Since the version on side A is already compiled you need to compile the BASIC progam on side B of the disk. Hi-Res 130 was written for the XE130 computer and allows you to save and recall pictures to and from the ramdisk.

TIPS 'N' TRAPS

By Jim Stevenson

Happy New Year everyone (even though this will be printed in February). A lot of messages have popped up for the past 2 months, especially for the new DUNGEON MASTER by FTL, BALLYHOO, and LURKING HORROR once again. Nice comeback for the two of the latter. Not bad. We still need some ARMUDIC support, so try to get on and expand. But for now, I think this will tie us over for quite a while. Remember, if you have any problems with any adventures, don't hesitate to call (Area code 703 on these numbers):

Me (Jim)..... 378-3540 *
ARMUDIC..... 569-8305
Merlin's Litterbox.. 250-7303
Electronic Age..... 620-0851
* - New number

LURKING HORROR

Q. How do you defeat that creature in the Pentagram room? I cut the line to get out, but I couldn't escape!

-"Shaman"

A. After cutting the line, EXIT PENTAGRAM or something to that effect. Then, MOVE BENCH. OPEN TRAP. D. Ok?

-"The Archer"

Q. What do you do with the brass hyrax? Do you put it on the hand?

-"Shaman"

Q. I found the Tomb in the sub-basement of the Aero Building and opened the lock. Now, those stupid rats in the tunnel. How do I get past them, or survive them?

-"Zor Prime"

Q. How do I enlarge the crack in the wall? What am I looking for in the cinder block tunnel? How do I frighten the urchin and with what?

-Steve Steinberg

STATIONFALL

Q. How do I get the Balloon Creature to follow me? I tried feeding him spores...; What is an "ostrich nip" and where is it?

-"Max Quordlepleen"

A. You're on the right track with the Balloon Creature. Keep experimenting with the can of spores. Think about carrots on sticks. Ostrich nip is to ostriches what catnip is to cats. There should be a note floating about somewhere that tells where it is. Same principle is used in its application as used with the spores.

-Chris Leonhard

BALLYHOO

Q. Is blue for male? Also, I found the trap in the cage (avec d'enselmble de gorrila), but I can't open it. And what about the elephant? And the other turnstile? And Andrew/Jenny??? And the baloon I got? And... and... (etc.)

-"The Archer"

A. Yes, the blue dot is for male (although it doesn't seem to matter which you punch). Forget about the trap door, you can't solve that until you're much farther along in the game. One of the first things you should do is figure out how to get through the southern turnstile. (I actually got through this before I figured out how to get through the east turnstile! I didn't notice the slot in it until I had examined it about 2 dozen times.) The other puzzles will be much easier to solve once you've been down south. The elephant in particular. The guard in the cage by the turnstile is a font of useful information. Interrogate him mercilessly. You will take advantage of his handicap to get through the turnstile. Ask him about EVERYTHING and EVERYONE! Do you have the game manual? It contains useful hints and phrases you will use in the game.

-Chris Leonhard

Q. I finally got by the guard. Now the problem of the ash tray. What's so great about it? Can I use the key on the other trailer? (I didn't have it at he time, and I didn't feel like restoring it and getting it) And I thought that they put Chelsea under the front! I went back, but she wasn't there. Did the roundabout take her somewhere else? Oh, can I buy something from Billy?

-"The Archer"

A. EXAMINE the ashtray. Consider the possibility that the firebug might not have been as thorough as he'd thought. There is another passage between the southern section and the main part of the circus besides the turnstile (since you can only use the turnstile once). Your problem is, you have to discover it (the first time) from the southern side. It will be necessary to reenter that part of the circus later in the game, so I'm afraid you will have to redo that part and find the passage. What gave you the idea Chelsea was under the front? Did I miss something?

-Chris Leonhard

Q. I got a problem. I can't get the ashtray. When I try to leave, they take it from me, and

they also expose me if I stay. And firebug? What firebug?

-"The Archer"

A. Annie Oakley means a ticket. I still haven't discovered the importance of this. I think it might be connected to the trapdoor located VERY close to the elephant front. As I said before, I still don't know what you can do with the detective and Billy Monday (at least that first time you run into them). By "firebug" I just meant the person who burned whatever it was that they burned. You are going to be unmasked eventually no matter WHAT you do, so make the most of the time you are allowed in there! Examine that ashtray (and its contents) carefully (and I don't mean just use the verb EXAMINE)!!!!

-Chris Leonhard

DUNGEON MASTER

Q. How do you get past the purple rotifers in the "Doom" level?

-"Reforger"

A. This is an answer to my own question: you use the magic boxes to stun the purple worms (okay, they looked like rotifers) while they're under the door, then step forward off the pressure plate and hack on them for a while. The door will close on them, doing all kinds of damage to them, and you can do some damage, too. Beware! They wake up after a while and they're NOT happy with you!

-"Reforger"

Q. (1) Is there a gold key in the "Room of the Gem" section? (2) How did you get past the pit (the 1st?) in "Time is of the Essence?"

-"Max Quordlepleen"

A. (1) Yes. You'll have to find the blue gem to get to it, though. (2) Umm ... it's been a while. If this Isn't the "Cast Your Influence, Cast Your Might" pit, the trick is to notice what happens when you throw something into the blue mist that comes on when you press the button in the wall next to the pit. That's the pit you get to AFTER "Hit and Run."

-"Reforger"

Q. Well, how bout the blue gem? I mean, I found a rabbit's foot, and some other junk, but no blue gem in the entire maze. I'll work on the Hit & Run pit, I also found the purple rotifers.

-"Max Quordlepleen

A. There's a gem in the Room of the Gem - but you need it to open a door - the one if you continue straight instead of crossing the pit and then it disappears. Blue gems are needed later on.

-"Reforger"

BARBARIAN

Q. How do you get past the Tin Man to get the bow?

-Mike Bornhorst

A. It turns out, that you can't actually pick up the bow. It's just something to lure you into the clutches of the Tin Man which is conveniently invincable. It's probably just a bug, and an actual gettable bow can be found later on so don't worry about it.

-Jim Stevenson Jr.

BARBARIAN BREAKTRHOUGH. I've discovered why Necron won't die on occasion. Remember that big orange dragon? You CAN NOT kill Necron with the invincible option wihtout killing the dragon first. And all it takes is about 2 or 3 arrows right in its chest. It'll go up in smoke and you can therefore kill Necron. I've done it, and I've discovered that there's not much of an ending, but at least it works for sure.

-Jim Stevenson Jr.

STAR TREK

Q. How do you use the guns to fire the phasers & photon torpedoes?

-Mike Bornhorst

A. You move the circular cursor over the target ship, press the left mouse button, and wait for the digitized words "locked on target". Then you put the cursor over one of the four boxes in each corner and start firing.

-Jim Stevenson Jr.

PHANTASIE

Q. What is the best way to get experience, money, and weapons?

-Anonymous

A. The best way is to fight Zeus. I know this sounds tough, but there is an easy way to do this, Once you are in Olympia, go to Zeus's dungeon, and after using all the rings, exit the dungeon and save the map, then enter the dungeon again. You should be able to walk right up to Zeus. Then click "attack him". Make sure your party is ready to do so. A good test is to find youself a Minor Dieatee. If you can kill him with no problem, then you are probably ready. The best way to kill Zeus is to have your fighter cast his highest Strength Spell, then have the rest of the party cast their toughest Fireflash, then have the fighter cast is best Quickness, then have everyone else cast Fireflash. Everyone should be able to, even the thief. Be sure to save your game beforehand, so if you die, you won't have to start all over. 50% of the time, getting Zeus should work.

-Mike Bornhorst

130XE SUPPORTS 30-STORE CHAIN

What Could Be More Practical?

by Len Poggiali

Although Atari 8-bits have long been touted as excellent home entertainment, educational and practical applications (word processing, data storage and retrieval, etc.) machines, quite often their value as business machines has been overshadowed by those other attributes and also by other, more highly publicized computers for the workplace. From time to time, however, we hear of a company that is making good use of Ataris in helping run its day-to-day operations. Such an organization is Somers Corporation, which operates COMFORTABLES, which in turn sells Ohio-based Mersman furniture in some thirty retail furniture stores all over the country. It was in COMFORTABLES' Lake Forest Mall, Gaithersburg, Maryland location that Bob Millard spotted an Atari 8-bit in use. When I called him for details, he was very cooperative and supplied me with the lead for this article.

As a result, I had the opportunity to speak at length recently with Brian Boyers, COMFORTABLES' operations manager, and the person who designed the computer business system currently operating. COMFORTABLES specializes in living room furniture, sofas, chairs, entertainment centers and the like. Upholstery products (sofas, love seats, chairs, etc.) are the most popular items. Stores display only floor models; the customer picks what he/she wants; and a salesperson enters an order. Because of this there is no perpetual inventory. Also, because of the nature of what is being sold, it is a low transaction environment (unlike a supermarket, for instance) in which the average order price is in excess of $500.

Brian Boyers does not take credit for introducing COMFORTABLES to Atari products. That distinction goes to Somers' president, Will Somers. Somers, who had a systems engineering background, and had been with IBM for years, also happened to be an Atari hacker. So, when he was developing the prototype store for COMFORTABLES, he decided to use Ataris to help manage the business.

When Boyers came to the company some three or four years later in 1985, he was put in charge of designing and implementing a system which COMFORTABLES would be able to use throughout its by-then greatly expanded chain of stores. The original system was in one store only, and the software for it was a modified public domain program which had been designed primarily for grocery stores. Not only was the program unsuitable for a custom order furniture business, but to make matters worse, error checking and handling were rudimentary, and the program lacked the user friendliness necessary whenever a non-computer-oriented type of sales staff is involved.

Working with programmer Brian Sammond, Boyers designed a system complex enough to interconnect each of the stores to a central computer, and yet user friendly enough so that employees in each of the locations would be able to use the program making as few errors as possible. To help facilitate matters easy-to-follow prompts are supplied. "Some people are so computer illiterate you can't imagine," Brian noted at one point, "and without prompts they couldn't do it." Store workers also can get help by calling Brian and his support staff of two.

Each system's in-store hardware consists of an Atari 130XE using a 40-column screen with an OSS BASIC XE cartridge, two Astra 2001 double density floppy drives, a Panasonic printer, and a Supra 300-baud modem.

Four floppy disks hold all of the twenty-five complicated and interconnected programs, many working with the same data files. One disk holds accounting files; one holds mailing lists; a third is the data disk; and the last is for the remaining programs. Although Sammond was forced to use machine language at times, the bulk of the programs are written in Basic since he was trying to maintain readability (which is better in Basic) for future programmers.

The computer and peripherals function like a sophisticated cash register, providing detailed receipts of all items, product files, and prices and information on all Mersman and Waldron items (the brand name COMFORTABLES handles). In addition the system provides daily and monthly reports of sales by product, including margin and pricing information, and by salesperson; tracks cask, checks, charges, etc; keeps a dollar figure for inventory for accounting purposes; provides regular and specialized price lists for different promotions; and includes a built-in mailing list function so that targeted mailings can be made.

When the salesperson receives an order from a customer, he/she punches that order into the Atari. The computer then searches the files and tells the salesperson whether the item is

available and, if so, what the delivery date will be. Generally it takes five weeks for in-stock merchandise to reach the customer.

At the end of the work day, the relevant files are loaded in, and only the Atari computer and the modem are left running. That evening an IBM PC (640K) at a central location calls each of the Ataris and sends information to them concerning the status of inventory, and other pertinent details, and receives from the Atari orders taken during the work day. Even though the Atari sends its information via a relatively sluggish 300-baud modem, the PC on the other end receives so slowly, due to memory management overhead, that utilizing a delay loop is necessary. Phone calls, however, take only a few minutes each because all of the information is compacted.

To Brian Boyers, Atari computers were a natural choice for this type of system. For one thing, he feels that they are easy to program. For another, they are inexpensive. His faith in the 130XE has been justified not only because they have done what he has wanted, but they have done it well and with only a couple of breakdowns among the entire 30-store operation. Considering that these units are on twenty-four hours a day and are run by computer neophytes, this is a minor miracle.

If Brian likes Ataris so much, however, why doesn't COMFORTABLES purchase Atari peripherals from its Denver-based distributor and employ these in its operation? In the case of disk drives, Astras were used because they came with the easy-to-use SMART DOS, and more importantly, were true double density machines. Double density was a must, as the programs were too complex (some with 1000 lines of code with multiple statements) and the files too long (some at 500 sectors) to fit onto four disks if handled by Ataris drives.

Panasonic printers were favored due to their deservedly excellent reputations and their competitive pricing. They also have served COMFORTABLES well, even when four-part paper is being used, something which the manufacturer does not recommend heartily.

Although Boyers has no gripe to make about the Supra modems, he has been contemplating switching to Hayes-compatible modems because he is fearful that the Supra modem's days may be numbered.

For COMFORTABLES, its computer system is a key part of its business system. Employing only four disks of programs and a system made up of very fine, very inexpensive hardware, COMFORTABLES not only gets the job done without having to employ a large clerical staff, but also does it in a more thorough, more efficient manner.

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THE COMPLETE PACK RAT

Or Tools for Hard Disk Users

by John Barnes

My new hard disk system has made my time at the ST keyboard much more of a joy. All I have to do is boot up and wander around freely from one activity to another. The nightmare of losing everything if I fail to dutifully keep backups is always there, however. As a natural born pack rat I also run the risk of fouling my nest with accumulated goodies.

Since a hard disk only holds the contents of 25 or so floppies (which is a small fraction of the usual library), it is obvious that there is a continual need to move stuff back and forth.

If the authors of TOS had done their job properly this would largely be a simple matter of dragging icons into, out of, and on top of each other all over the desktop. They did not, however, and I have had to resort to a number of software tools of variable quality to sort out my string drawer.

My model for a good backup/restore package is VAX/VMS BACKUP. Oh well, YGWYPF. I have found some tools that are more or less functional and I am sharing them with you in the hope that someone will see the light and come up with a good package. Let me know if you find any programs that I might have missed.

COPYFIX

This tool is a partly successful attempt to correct the TOS Date Fiasco, wherein every file that you move gets its date changed right away. I am fussy about dates when I move files. This lets me be sure that multiple copies of the same file on different disks are really one and the same.

If you want your file dates to change all the time you can leave this out.

With COPYFIX installed you can drag files around on your desktop to move them between drives or folders. I say the tool is partly successful because I have found that some software bombs when COPYFIX is installed.

DCOPY

This tool is useful for browsing around your directories. It has a FIND function that is very useful. For the purpose of this article the MOVE function is important because it lets you relocate (rather than simply copy) files to another place. DCOPY has a number of other neat functions, but it is more than a little clunky. I get very annoyed when the FIND function displays all kinds of directories that do not contain the file I am looking for while the good ones scroll off the screen.

HDSCAN

This shareware program is a very nifty utility for browsing through all of your hard disk partitions. A scrolling window contains the names of files from all of your drives (hard, floppy, and RAM) or from a selected directory. The program displays the directory information (size and date) for the file on which the cursor is resting. You can "tag" files for copying or deletion.

A "professional" version of the program is available for a price. I have occasionally found the system date on my clock corrupted when using this program, so I am not quite ready to endorse it fully. HDSCAN bombs when COPYFIX is installed, so be careful.

TOUCH

This utility is well known in the UNIX world as a way to modify the creation date on a file. I use it because I can force new material to the top of a "Sort by Date" list in an open file window on the desktop. I sometimes find that files that I have modified retain their original creation date (files from PHASAR are a good example). I then TOUCH then to make sure that I back them up. This is also handy when my system date gets corrupted, as it sometimes does (another DeskCart bug?). I only wish that the QMI version would accept wildcards. This is also an undocumented feature in the DO_IT! book.

TURTLE

The best "power without the price" tool around is named TURTLE. It was written by George Woodside and it is available on the WAACE BBS. TURTLE can back up a full 5 meg partition in something under 10 minutes. This is not blazing speed, but it is adequate. TURTLE yields disks that you can make sense of and it

preserves the original date when it copies the file to a floppy disk. You can make sense of TURTLE disks because they are like regular TOS (or TWISTER) disks. We'll talk about this a little more when we talk about restoring files.

TURTLE supposedly can make use of the "archive bit" to perform incremental backups in which only those files that have not been backed up are copied out to the floppies. This would be very handy indeed if it worked. Conversely it would be nice to have a utility like TOUCH that would unmark the archive bit in order to force a backup. TURTLE only backs up hard disk sectors that have been written to, and the resulting files on the floppy are contiguous.

Restoring backed up files is pretty easy if you used TURTLE to make your backup disks. The files are there, in their folders, and all you have to do to restore them to the hard disk is perform a regular copy operation by dragging the floppy icon onto a suitable open window for the hard disk partition (with COPYFIX installed so as not to screw up the dates). Before doing this you can selectively delete files that you do not want to restore.

The ability to restore selectively is important because you often want only one small piece of a backup and you don't want to disturb the current contents of your hard drive. This is easy if your backup medium is in TOS or ARC format, but it is otherwise difficult. And don't forget - you want the original date when the file is restored. TURTLE cannot, however, back up files that are bigger than a single floppy can hold.

MEG A MINUTE

This utility, by David Small, is another approach to the Backup/Restore problem. The program simply makes an image of your hard disk partition that it writes out to floppies in chunks that the floppy can hold. To get the material back you restore the entire partition. There shouldn't be any problem with dates here.

The file that is created on the floppy cannot be used for anything else. One big advantage is that your files can be as large as is practical. Another is that you don't have to think about what you are doing. One disadvantage is that even the empty sectors are written out. On the whole I dislike bizarre file formats for backups because they inhibit selective restoring. I am not sure what happens to a fragmented disc with Meg A Minute, although I can certainly think of ways to unfragment while backing up.

HARD DISK TOOLS

This commercial product from Beckenmeyer Development Tools resembles MEG A MINUTE but it is more flexible. You can be very selective about what you back up and restore, and the original date is preserved (hallelujah!). Incremental backups (ala TURTLE) are possible. The ability to deal with tree structures is very useful. The program is also pretty smart about handling folders. Files that fill multiple floppies can be handled. Since the disks are not readable by TOS you must use a SCAN function in the restore module to list the files in your save set. It would be really nice if SCAN would send the list to a text file so that it could be edited or printed. The product is probably worth its modest price, but the documentation, like other Beckenmeyer docs I have used, is terse to the point of being cryptic.

The package includes a utility called UPDATE that will copy a folder onto a floppy, replacing old files with newer versions while leaving unchanged files alone. I found this to be flaky until I used it from the DO-IT! shell. I think this whole package could use some more work, but it is as good as anything I have seen to date.

THE ARC UTILITY

Most people think of the ARC utility as a punishment inflicted by BBS SYSOPs, Disk Librarians, and similar sadists. It is, however, a useful device for the pack rat because it allows him to gather little bits of string into a single file. It also preserves the file date going in and coming out. It also saves lots of disk space.

All of the "crunching, analyzing, done" can be pretty slow and you certainly have to keep track of what is happening. This is a little tedious for routine work, but it is handy when you are filing away obsolete stuff or when you are trying to keep things together in a package.

A ramdisk helps when you are working with archives and I have found the ETERNAL ramdisk especially useful because it persists cleanly through most warm restarts.

CONTENTS

I mention this old chestnut here because I find it useful to periodically obtain an editable list of all of the files on one disk or another. The program searches through all of the directories on your disk, expanding the directory tree as it goes. It writes the names of the files it finds to a plain vanilla ASCII text file on the drive containing CONTENTS.PRG.

You can then print this file out, use it as input to a utility program, or do whatever you like with it.

This is an exceedingly handy way to find out what you have in your pack rat's nest. The version that I have gets buggy when you have lots of files in a disc partition and it does not deal with drives beyond E:.

COMMAND SHELLS

The output of CONTENTS.PRG can be edited into a batch command file for use with DO_IT! or the MICRO C SHELL (if you happen to like UNIX's cryptic lowercase commands). Use your favorite program editor for this work.

I find this especially handy when I install new software because I can set up the necessary folders, eliminate unneeded files, and perform the necessary copying by typing a simple command line. In many cases this is more efficient than multiple mouse drags. I usually write the batch command file onto the distribution disk as documentation for the proper procedure so that I can invoke it again if I need to reinstall the program. Neither DO_IT! nor MICRO-C mess up the file dates when moving files from one place to another.

WORK HABITS

Habits are things that monks and nuns wear and it is totally appropriate for a hard disk user to put on good ones. Prayer, however, is not much help when the day arrives that your drive stands before you bereft of its files because of a great crash. This event is just as inevitable as the Judgement Day.

The first good work habit is neatness. Partition your drives wisely and use folders liberally for ease of filing. You will find that most things that need backup are already gathered together when the time comes. There will also be areas that rarely need backup, thus saving time.

The second good work habit is discipline. Back things up as soon as you make them. In fact there are many files that might best be created and updated without ever seeing a hard disk. Examples include Word Processing files, spread sheets, image files, and the like. These take much more time to create than is required to write them to a floppy. It then becomes a very simple matter to use a tool like ProCopy to make a duplicate of your most precious floppies.

This is hard to do and I often cheat on it because it is so simple to just let everything collect on the hard disk.

CONCLUSION

I can't get out of this pulpit without delivering one last shot at the developers. You (the developers) should learn to write programs that allow us to adopt good habits. An operating system that is always messing up our file information is next to useless. Programs that do not allow us to specify work directories different from those used for execution tend to force us off the path of righteousness. PHASAR, WORDPERFECT, and GRAPHIC ARTIST are examples of well-written programs because they allow the user to specify where his data is to be found and kept. More developers should adopt this approach.

Utility programs that perform only part of their job are as bad as no utilities at all because they force us into needless agony to devise workarounds. I have ignored a good many of the commercial backup/restore packages for exactly this reason.

I hope that *CURRENT NOTES* readers who get the hard disk bug will enjoy their units as much as I do. Just remember, when the Judgement Day comes: "I told you so!".

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IT'S A SMALL WORLD

By Dave Small, (c) 1988

BEST ELECTRONICS: 0
SUN* ATARIFEST: 1

"Look at the world we make,
what have we begun?
People, livin' for what they take,
all for number one..."
— Tom Scholz
Boston: Third Stage Album
MCA Records

Heroes come in many different shapes and colors. That's the lesson I learned from the Sun*Atari show, held November 15-16, 1987, in Palm Beach, Florida.

Jim Woodward is a hero to me; let me explain why.

Back in 1987, we discovered a company called Best Electronics was selling a cartridge board whose sole purpose was to rip us off. We found this out at the Denver Atarifest show, where Best's owner tried to sell me one; he offered me an Eprom board, Eprom copies of the Apple ROMs used in the Magic Sac, and a copy of the Magic Sac disk. As I said at the time, "here's a guy offering to rip off two years of my life".

When we discovered this, back in April 1987, life was pretty tough at Data Pacific. Sales of the Magic Sac were way down, partly because it tended to crash on a lot of programs, and mostly because of widespread piracy of the product.

Our first reaction was to make any Best Electronics cartridge not work anymore. If our software was started up on a Best cartridge, it proceeded to format the disk it was run from. Since we had chips on our cartridge unique to our unit, we could determine positively if it was our cartridge or not; if it wasn't, big problems for the user.

I also buried a variety of logic bombs, some time delayed, in the code, on the theory that Best would try to disassemble and modify our code. I was correct; I heard many stories of people bypassing the "format" section of the code, and getting the Magic Sac to start, but who were then clipped by a logic bomb a little while later. (Funniest of all were specific Mac-like "Bombs" I buried in the code; the only way they could happen was on a Best cartridge with modified code. I started getting technical support calls and notes on the online networks about them, which were great entertainment.)

Best Electronics, of course, was furious. Their customers were pretty unhappy; they could no longer run new revisions of the Magic Sac. And this really mattered; right after the Best code was added to the software came the revisions 4.32-4.36, where we finally started conquering the MacCrashes with our zerostore handler. And, with 4.52 came the hard disk, with 5.5 came the Translator...

Best finally gave up trying to "crack" our code; they failed. So they came up with the next best alternative: a kit to convert one of their pirate cartridges into one of our Magic Sac One cartridges, so our software wouldn't logic-bomb anymore. It added the chips found on the Magic Sac One that our software looks for to determine if this is a genuine Data Pacific cartridge.

Where'd they get the directions for this? Being the technical whizzes they were, they... copied them. Yes, this was the summer of *950* Magazine, a magazine with many "How to Pirate" topics. And sure enough, someone figured out that if you take an Eprom cartridge, add the exact chips we add on the Magic Sac One, wire them the exact same way... why, it works. (Big surprise. Sheesh). So, Best photocopied the page from *950* about how to pirate a Magic Sac cartridge, and made up a little kit with one of their cartridges, the necessary chips, and started selling it. So, we're talking about selling pirated directions to make a pirate cartridge...

While there might be a legitimate purpose to selling a blank Eprom cartridge (say, for a software developer), there can be no legitimate purpose to selling a Magic Sac clone -- the only way it can be used is with a copy of our (copyrighted) boot software.

So, we ordered up a Best kit under a false name, looked it over, ran out of tolerance, and gave our law firm a call. Best was wished the merriest of Christmases this year with a registered letter, and that's all I can say on that subject right now.

At the Boston-Worchester show, we found Best Electronics busily trying to sell this kit. Neil

Harris of Atari, to his eternal credit, went over and put a stop to it, offering to remove them from the show if they didn't stop. They stopped.

Because of a previous article on Best (May 1987 Current Notes), many folks have begun boycotting them. It's a shame, in a way. They used to have a good reputation in Atari circles... I mean, where else could you get an Atari belt buckle?... but now plenty of people know Best only as the company who rips off Data Pacific. (Well, not for much longer, anyway).

So, at the Nov*Atari show in October, sponsored by a coalition of groups in the Washington, D.C. area, Best found themselves with one quiet booth. One person told me later that he'd thought of purchasing some Atari coffee mugs, and got close to the Best booth, at which point an unknown friend of ours told him, "You're known by the company you keep", and how Best was pirating our product.

He didn't buy the mugs.

But the best, if you'll excuse the pun, was yet to come.

The last Atarifest show of the year, Sun*Atari, was held in November, 1987, at Palm Beach. The chief organizer was a guy named Jim Woodward.

Jim has the sort of bright eyes and mannerisms you associate with a computer wizard; I enjoyed talking to him on the phone during the show planning process. And he told me one of the nicest things I was ever to hear: He'd read the previous article on Best Electronics, and decided to ban them from the show. (That's all I heard before the show itself.)

We came out to Florida, set up for the show, and sure enough, no Best Electronics. What a relief! And I started hearing about what Best Electronics had done to Jim. Again, he hadn't said a word to me about it.

One of Jim's friends filled me in. Best called Jim up to ask why they hadn't automatically received an invitation to the show; Atari provides a mailing list of people who ordinarily go to shows. Well, Jim replied, you've been barred from the show for what you've done to Data Pacific. (End of conversation.)

You can imagine how furious Best was at this. Why, how dare he?

Best then took their mailing list of buyers and printed out a special notice for anyone they knew living in Florida. It said, we've been barred from the show; if you want us to come (and sell you Atari belt-buckles), then you'd better call up this Jim Woodward guy and pressure him. Here's his phone number.

So Jim started getting all sorts of weird calls from people, threatening not to show up if he didn't relent and let Best come. Some were pretty abusive. I spoke with a person that works with Jim, who told me of some of these calls; one group from Tampa really gave him a hard time.

Jim stood firm. No Best Electronics.

You've got to understand this was a tough thing for him to do. His show wasn't sold-out, the local press wasn't all that interested in covering the show, and all he needed was people threatening to not even show up. He could have found a hundred reasons to give in. What did he owe Data Pacific?

But, he didn't.

As the show progressed, I kept hearing stories of how Jim had been pressured. (None of this came from him).

Well, despite the lack of Atari belt-buckles, the show was a success. It was pretty well jammed the first day and pretty busy the second day. The threatened boycott just fizzled completely.

We had brought three of our Translator units to the show. (These are the ones that make Atari drives Mac compatible). They were hand-built, as we were having mass-production problems, but they definitely worked -- in spite of a Dave Small soldering job. We'd brought them to show people who had pre-ordered them that the Translators were real, worked fine, and we were just having trouble ramping up the assembly line. At this point, the demand for Translators was extreme; there were something like 750 pre-orders, and we were running late. We needed every one we could build.

But we kept hearing what Jim had put up with. He didn't even ask for thanks! To him, it had been the right thing to do, and despite the pressure, he did it. There just weren't alternatives.

So at the end of the show, we gave the first Translator -- serial #0001 -- to him.

Sometimes the good guys finish first.

And Jim Woodward will always be a hero to me.

SUPERCHARGER

The Image Converter from Migraph, Inc.

Review by Milt Creighton

SUPERCHARGER permits graphic images previously saved under a number of different graphic formats to be imported into EASY DRAW or possibly any other graphic application which accepts standard compressed GEM bit-image (.IMG) format graphics. In addition, images produced by several commercial scanners which support the IMG format can be imported into SUPERCHARGER for editing and then saved in compressed form. Finally, SUPERCHARGER also includes a snapshot desk accessory which permits saving monochrome screens in .IMG format.

One of the first questions that comes to mind in deciding whether to SUPERCHARGE your EASYDRAW is just what does the .IMG format buy you that you don't get with other graphic formats?

The answer may surprise you. The resolution of most graphic files such as NEOCHROME and DEGAS are dependent on the resolution of the monitor which was used. For example, even a monochrome DEGAS screen produces an image of only 640 x 400 pixels, equating to a dot density of about 75 dots per inch (dpi). Most current dot-matrix printers are capable of producing graphic images with a density of 150 dots per inch (dpi) and some as many as 360. The result is a print-out of less than optimum resolution.

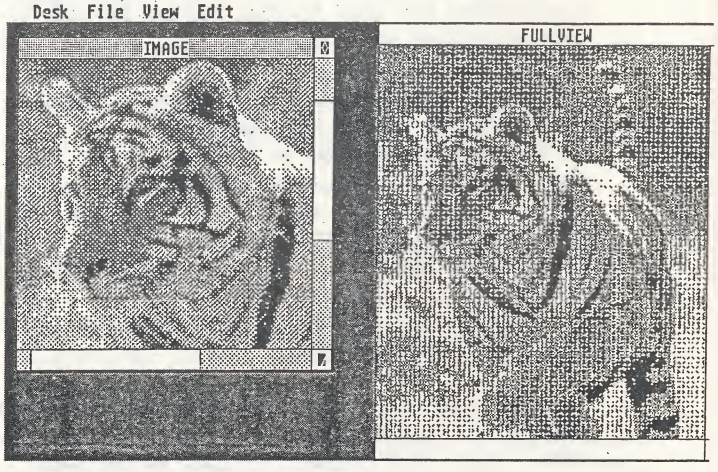
.IMG format changes all that because it is independent of screen resolution. If the image was produced with a scanner capable of 300 dpi, then that is the way the image is stored. The advantage is that you get to make use of the maximum resolution capability of your digitizer or printer. So, let's look at what SUPERCHARGER can do for you.

The image conversion portion of SUPERCHARGER permits you to import DEGAS, DEGAS ELITE, NEOCHROME, and MACPAINT files into the program, convert them to monochrome (if necessary), edit them, and then store them on disk in compressed .IMG format.

Most paint programs such as DEGAS create color images which is just fine if you intend to view them on a monitor screen. But should you decide you want to use the image as clip art in a printout (and you don't have a color printer), it's necessary to convert the color image to monochrome. There are some public domain programs around which allow the conversion of low and medium resolution images to high resolution monochrome, but you have no control over the method the program employs to effect the conversion process. Not so with SUPERCHARGER.

SUPERCHARGER permits you to choose between four different conversion techniques, all resulting in a monochrome .IMG file. The techniques include mapping to black (converting all of the colors but white, 70% of the colors to black, or 30% of the colors to black), auto-mapping using a 2x2 matrix wherein each colored pixel of the original is converted to a 2x2 pattern, auto-mapping 4x4, and table-mapping 4x4 where you can assign unique patterns of your choice to each color. The result will often result in good monochrome images of colored originals.

SUPERCHARGER also permits some editing of the monochrome images produced by the program. The editing choices include drawing pens of various widths, inverting the colors of the image or cropping a portion of the image to save to disk. The cropping is highly recommended, especially for images which were converted using 4x4 mapping techniques because it is very easy to produce extremely large files of 130K or more with this program. SUPERCHARGER also has a zoom feature for increasing the magnification of the image for greater accuracy in editing. It will also show the size of the cropped image in pixel width to maximize the image resolution when importing to EASYDRAW.



While the SUPERCHARGER is directly compatible with images produced by the Navarone scanner, others such as the HP Scanjet must produce their images using other computers and then transfer them to the ST for import into SUPERCHARGER. Unfortunately, the IMG Scanner from Seymor-Radix does not at present support the .IMG image format, though an upgrade is supposed to be in the works. Currently, images produced by this scanner have to be saved in DEGAS format and then imported into SUPERCHARGER, at some loss of resolution. It is, however, possible to save the data in raw format as well, so at some later date it may be possible to convert the raw data into the higher resolution .IMG images.

One of the nicer features of SUPERCHARGER is its ability to convert MACPAINT images into .IMG format. There are thousands of MACPAINT drawings in the public domain readily available for use as clip art. SUPERCHARGER opens that entire library for EASYDRAW owners.

The Migraph Snapshot desk accessory which is also included on the SUPERCHARGER disk is similar to several public domain programs of the same type. It permits capturing a graphic screen (or a portion of a screen) and then saving the image to disk. The Migraph version will permit saving a monochrome image in uncompressed .IMG format while color images must be saved in DEGAS format. Unfortunately, the snapshot program is written as a standard GEM desk accessory and is unavailable for use if you cannot access the GEM menu bar. The upshot of that is you probably cannot grab your favorite game screen for use as clip art. The solution to that problem is to use one of the snapshot accessories which utilize the Control-Help key combination to dump a screen to disk in DEGAS or NEOCHROME format, then at your leisure import it into SUPERCHARGER and convert to .IMG format. You won't lose detail because the resolution of the image is set by the screen resolution you use anyway.

The Bottom Line: SUPERCHARGER from Migraph is a very useful image conversion utility which can be used to add to the availability and detail of graphics in the latest version of EASYDRAW. The included snapshot screen saver, through not currently designed to be used with programs which do not permit access to the GEM menu bar, is useful for capturing graphic images and saving them to disk. In all, this program continues to add to the usefulness and power of EASYDRAW. It is a quality product. Just what you would expect from Migraph.

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PARTNER ST

Office Automation At Your Fingertips

Review by Roger Abram

PARTNER ST, by Timeworks, Inc., is a desktop accessories package developed by Blue Moon Software geared towards an office environment. Since I don't have the pleasure of having an Atari ST where I'm gainfully employed, I did the most practical thing in obtaining an honest review -- I lugged my computer equipment (disk drives, printer, modem, mousepad and all) into the office for a week to see how PARTNER ST could fit into my daily routine. In addition to showing off the capabilities of the ST and convincing two fellow employees they should buy one, the program came in very handy and was used extensively.

Here's a brief rundown on the program's features and how they performed:

ALARM CLOCK -- The ability to set alarms throughout the day as reminders of upcoming meetings, calls to make, letters to write, and other miscellaneous tasks was invaluable. Alarms can be set for the present day only, every day, weekly, monthly, and yearly. Unlike Macro Manager (Blue Moon's previous desktop accessories package), if you're not using your computer when an alarm has been set to go off, any missed alarms will greet you the next time you use the ST.

APPOINTMENT CALENDAR -- You can view an entire month in calendar form at a glance and make short notations in the "date box" to remind you of anything from a birthday to the fact that there is more information to be found pertaining to that day. Click on the box and an additional screen will appear with boxes highlighting "Key Tasks," "To Do List," and "Appointments." The most frequently used items here were the list of things to do and appointments. You can even enter the time and information for appointments in such a way as they will become alarms and alert you on the appropriate time and day.

CALCULATOR -- The calculator has almost every feature that anyone could want -- it adds, subtracts, divides, multiplies, has ten separate memories, can calculate interest, loan amortizations, and discounted cash flow analysis. It can also perform functions such as sine, cosine, tangent and natural logarithms. I never had the need to use it for anything but basic addition, subtraction, and multiplication, but the other features are there if you need them. It also operates as Hex and RPN calculators and can print out all calculations on a printer.

NAME AND ADDRESS LIST -- Performs the tasks of a Rolodex card file system with one extra feature -- if you have a modem, it can even dial the number of the "card" you have displayed. The program can search by key word or phrase to find the card of the person you need to contact. The list can be printed out in four different formats and you have control over form settings to suit your paper stock. The formats are: All (prints out all information on the record including date and time of last update), Address (prints only the name and address), Cards (prints everything but time and date), and Phone (prints out phone number, name, and memo). The above reports can also be printed to disk for loading into other programs.

THESAURUS -- Outside of Word Writer by Timeworks and the new Word Perfect, this is the only thesaurus I know of which is currently available for the ST. Synonyms are arranged in groups of clusters in a pop-up window which you can move around on the screen. The only drawback is that as a stand-alone accessory it doesn't interface with your word processing software so you can't click on a word in your document and have synonyms instantly displayed. The documentation states it contains over 60,000 synonyms and as a desk accessory will work with any GEM based program. I have had no problems using it with Version 2.0 of ST Writer.

MEMO PAD -- This is a mini word processor to be used to jot down notes to yourself or compose letters or memos. The results can be printed to disk or sent to your printer where you again have control over the page setup so that all types of forms can be used with the memo pad. I used this at work to capture thoughts for preparing this review as I used the program.

VITAL STATISTICS -- Different "vital statistics" files can be loaded into the memo pad for viewing. These include metric equivalents, weights and measures, toll-free numbers, holidays, area codes, and mileage between cities. For the most part, these files are a joke because they are so small. For instance, the file for mileage between cities only incorporates eleven cities. If these files are to be any use to you, you'll have a lot of updating to do.

EXPENSE MANAGER -- Used to monitor expenses on any items you elect to track and can also print out totals by type between any given dates. I had no use for this feature but it could be important if your company frequently needs to reimburse you for out-of-pocket expenses.

TIME KEEPER -- Used with the Appointment Calendar, totals from time spent on various activities can be printed out if your business allocates your salary to different projects or accounts.

SWIFT DOS -- Stuck in a GEM program that only gives you limited access to file manipulation? Then SwiftDos is the answer. This aspect of PARTNER ST lets you copy, delete, move, and rename files. You can also format disks, make directories, remove directories, and send printer commands directly to your printer.

ESCAPE! -- Escape! is a "Breakout" type desk accessory game which is all too familiar to the ST. The paddle in the game is sluggish and the copy of the program I have bears little resemblance to the one described in the manual. Timeworks would have been better off not trying to be so cute and left this accessory out of the package.

PARTNER ST will work on color or monochrome monitors and the two disks that come with it are not copy protected. Instructions are given on how to load and run it from a hard drive in the 140 (!) page program manual. To say that the manual is concise is an understatement. Instructions on even how to add two numbers on the calculator are given.

Users of unmodified 520STs beware -- PARTNER ST is memory hungry and depending on what GEM based programs you use it in conjunction with, you may have to turn off some of the program's features in order to have enough available memory. Full blown, the program leaves you with only 188K after being loaded. A limited version is also included plus you can customize which accessories you want in the setup mode. For hassle free use, one meg is recommended.

In the office environment in which I tested it, I found PARTNER ST very useful and an excellent tool. Now that my computer is home again, I still will use some of its many features -- thesaurus, calendar, and alarms.

[Timeworks, Inc., 444 Lake Cook Road, Deerfield, Illinois, 60015 (312) 948-9202. List price is $49.95]

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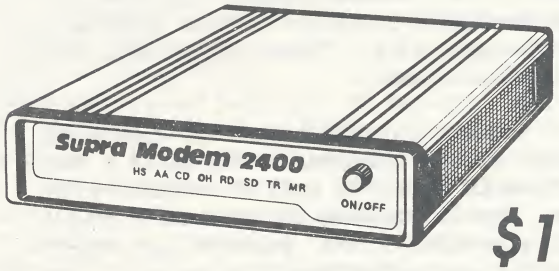

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GTS-100 FLOPPY DISK DRIVE

Future Systems' Alternative to the Atari SF-314

Review by Wm. Price

If you are happy with your Atari drives, read no further. But if the noise from your Atari external drive gives you techno-stress, or if you need a second drive, this review of the GTS-100 double-sided drive is for you.

If you are happy but have decided to read on, this commentary may make you join the ranks of the unhappy. However it will also quickly show you how to become happy again. The first signs of a sad face are usually produced by a single-sided drive. Its limitations are like a small pair of shoes that continue to get smaller and smaller. Although most of the ST and IBM software developers work within the bounds of single-sided disks, there is new and more powerful software coming that will make a double-sided drive essential. Macintosh developers are issuing more software on double-sided disks, and some of the newer applications exceed the capacity of a single side. For example, the PageMaker program is over 600K bytes, and there are others that easily push the 380K limits of a single-sided disk. As greater numbers of users migrate to double-sided drives, more powerful software will be developed to take advantage of the Mega capacities. Future action will be on double-sided disks.

If you are a prolific user and downloader, you have already discovered that it only takes 200 disks to equal the cost of a double-sided drive. And if you have copied between double and single-sided drives, you also have experienced the annoyances from this inequity. And if you are a devoted Magic Sac user, you have probably realized that the better software is packaged on double-sided disks. If this strikes a chord, you are in for Future Systems' GTS-100 double-sided 3.5" drive for the ST.

Another cause for some unhappy faces may be the noisy Atari drives. The original versions supplied with the ST used Epson mechanisms. Most can be identified by a disk eject button on the lower right. These drives were relatively quiet and they would copy 82 tracks - a requirement for most protected software. Subsequently, Atari started using other mechanisms from Chinon and NuArc. The Chinon was fixed so that it could not write beyond 80 tracks; so that was the end of Pro Copying protected disks. Both the Chinons and the NuArcs are noisy, and this in part can lead to techno-stress -- a phenomonen of office automation and the personal computing era. These drives sometimes sound like a 20mm cannon. At other times, they sound like metal scribers vibrating to engrave identifying marks. Aside from this annoyance, the Atari supplied drives do work.

One solution to this noise is to take a tranquilizer before starting a computing session. Another is to replace your drive(s) with an almost silent GTS-100. If you are ready to buy a second drive or move up from a single-sided one, the GTS is clearly the answer. Its a baby cousin of the 5.25" Indus GT drives made for the XL/XE Ataris. Like the Indus GT, the GTS for the ST has a LED numeric display that shows the track location during reading and writing. For those familiar with the GT, this display is an education in layout and location of the data that is used to control disk operations. There are also POWER and BUSY lights, but the power switch -- like those on the Atari drives -- is in the rear. The power supply, also like the Atari, is a separate unit with ample connecting cord. The box is black metal (no platinum gray), and there is a narrow spring loaded cover or door just inside the disk insertion slot. The GTS-100 is 1.5" shorter and 1.5" narrower in width than the Atari drives, and almost the same height. Although more compact, the real meat is the drive mechanism. Future Systems has wisely chosen the NEC direct drive. It is quiet and reliable. NEC and Mitsubishi are the mechanisms most often selected by third party vendors for high-quality ST drives. The GTS-100 is comparable in retail price to Atari double-sided drives, $250, and, like Atari drives, discounts can be found.

The GTS is almost dead silent in normal read/write operation whereas the Atari Epson version sounds like an old Singer sewing machine. The GTS purrs like a baby kitten, and during formatting there is an ever so slight but light thumping. Where the Atari NuArc drive has fits reading a Macintosh HFS formatted disk and sounds like a buzzing mini-gun on an AC-47 gunship, the GTS is tamer and much quieter.

These aspects relate to the psyche. But does the GTS really perform in all of the Roll-Your-Own (RYO) setups with the Atari ST? The quick, global answer is yes. With FORMAT.TTP from STart magazine, it will produce, copy, and read an 82 track, 10 sector DS disk with 838,656 bytes. It also easily handles the

TWISTER format produced by the magician -- David "The Sac" Small. Matt Orsie's FORMAT11 (Version 3.0), which does not work well on some Atari drives, does work well on the GTS-100. This program will produce 83 tracks, 11 sectors each, for a whopping total; of 923,648 bytes. With the disk loaded to 881,021 usable bytes, programs in the last track worked flawlessly as they did on the Atari Epson drive. Be warned that disks are not reliable at this density unless you are using premium high density (1.2 Mb) disks.

And while we are on the subject of disks, you do not need to buy double-sided. The single sides are identical except for the label and warranty. The same double-sided, magnetically coated sheets are used for both types of disks, and both are cased in the same hard plastic housing. The only difference is that if a disk labeled single side goes bad on the second side, the manufacturer will not replace it. And the chances of going bad for either single or double-sided are the same. Since the quality of disks are vital to reliable performance, stick with premium quality, single side disks like Sony or Fuji, and don't worry about using them double-sided. I've been through over 1,000 Sony SSs using both sides and have not encountered a problem. But some other brands have not worked as well -- either double or single.

On with the GTS-100 test. Pro Copies of protected software worked flawlessly where the Pro Copy version was stable. Don't trash your old versions of Pro Copy. On some protected software, these continue to work where the newer versions might fail. This is despite the fact that newer releases will crack the more recent protection schemes that the older versions of Pro Copy could not handle. You should label software with the version of Pro Copy, ST Copy, or Copy II ST that was successfully used. Later this will save a lot of anguish and time. There is no problem in using these copiers on the GTS.

How does the GTS work when the ST is used as a Macintari or Ataritosh? It works like a Starch Delicious apple with the Magic Sac and Translator One. The drive speed, checked with SPEED.PRG and DSPEED.TOS was dead-on 300 RPM. The Atari Epson drive varied between 298 and 299 RPM, but it also worked well with David Small's Jack Rabbit Translator. (Dave's magic of pulling the rabbit out of a hat is not just an ordinary bunny -- it's a Jack (Tramiel) Rabbit!) The GTS-100 reads both Magic and Macintosh disks in HFS as well as MFS formats. And the GTS will produce Macintosh formatted disks that operate on a Mac. These tests only confirmed what was expected as the Atari drives will do the same. Disks produced on the GTS in ST, Magic, Macintosh, and MS DOS formats all work as they should on the Atari drives. This should put any questions to rest concerning the GTS. It is a high quality drive that gives all the appearances of being equally reliable and durable.

In summary, this wrench-out fully demonstrated that there are no hitches or shortcomings with the GTS. Its unusually quiet operation gives peace of mind! If you have the television or stereo on, you will never know that it is operating unless you watch the track display and busy light. Even ambient noise in a room will mask the low level sound of its operation. Maybe someone will write a musical beep routine to signal when formatting or copying is completed. But there is one slight hitch. Like other third party equipment, such as the Translator and Monitor Master, the female DIN connector sockets don't provide as snug a fit as they do on some Atari equipment. This appears to be a function of the connector sources. If the socket and plug are not from the same manufacturer, chances are the fit might not be as perfect. On the Atari drives the cables seem to glide right into the socket and slip into place. With the GTS, the Translator, and Monitor Master, slight pressure may be needed to insure that the connection is properly seated. But don't overdo the pressure.

One last word on compatibility so that you won't be perplexed with the GTS or your Atari drives. When using the Translator, Macintosh HFS disks will not boot. Its a chicken and egg problem. First you must boot with a Magic MFS disk containing Finder 5.3, System 3.2, and an Apple file called Hard Disk 20 (HD-20). Don't let the hard disk nomenclature throw you -- it works on a floppy, and Finder 5.3 must be used. HFS was developed for Macs with 128K ROMs. To solve the problem for 64K Macintosh users (and indirectly for the Magic Sac), Apple wrote a patch in HD-20 to provide that portion of the 128K system that handles HFS. After you boot with this Magic start up disk, your drives will read Mac HFS formats with the Translator. If the formats are confusing, MCFORMAT.PRG on versions of the Magic Sac up to 4.52 only produced MFS formats. Later versions, like 5.5, give options for MFS or HFS in either Magic or Mac formats. Read Jeff Greenblatt's columns to get the full details on advantages of using HFS and some of its wrinkles with Magic.

The GTS-100 is recommended without reservation. It will provide an upgrade to your system for about the same price as an Atari double-sided drive, and the choice between the two is abundantly clear. The GTS easily earns five happy faces. My two SF-314s are headed out the door for two of Future Systems' GTS-100s. Free at last from noisy drive techno-stress!

PHASAR AT TAX TIME

by John Barnes

My review of PHASAR in the November '87 *CURRENT NOTES* touched only briefly on PHTAX, its tax preparation module. I have just finished working out my 1987 Maryland and Federal Income taxes using PHTAX and I thought I would fill in some of the holes and, along the way, correct some misinformation that Tom Marks of Marksman Technology called to my attention.

Tom also sent along a pre-release copy of version 3.0 of PHASAR and it looks like some things will be easier. I was reluctant to do any "beta testing" at the same time that I was closing out 1987, so I don't have any experience with the new release. Increases in the number of accounts, categories, and transactions per month are not due for a while yet.

Getting the Whole Picture

First of all I had to break the veil of secrecy that my wife had maintained on her accounts and get all of her data into the register file. This was a pretty quick process because of the experience I had gained on a year's worth of my own data.

My wife is impressed with some of the nice reports I got out, but she has been doing nearly as well with her own little ledger system over the years.

I was forcefully reminded that the register file for PHASAR is not, in fact, memory resident. I didn't notice this when I was using a ramdisk, but it became quite noticeable when I switched to a hard disk. I used the DiskCache program from Amgen to speed up my queries on the transaction file, and this helped a lot. This option is also available to floppy users who have enough memory to build a cache of 200 K bytes or so.

My earlier concerns for 520 users may have been exaggerated, but I stand by my conclusion that they would be better off with more memory.

Form 1040

The IRS people, in their infinite wisdom, changed almost all of the line numbers on Form 1040. I first worked my way through the sample form that I had previously adapted from the one that came with the PHTAX package and edited all of the cells to match the form I got from the IRS on December 26th. If I had really appreciated how tedious this was going to be I might have installed version 3, because it is supposed to make such editing much easier.

My expense categories were already pretty well in place from my earlier efforts at projecting my '87 taxes and it was not too much trouble to edit my wife's income and expenses into the cells where they belonged.

Schedule A: Itemized Deductions

Given the high local income taxes in the Washington area you do not have to have much of an income to take advantage of itemizing. My form had to be reworked extensively because of the changes resulting from the new law. I added some cells so that I could separate expenses for use with our combined separate Maryland return. I suspect that most dual earner families in Maryland use this approach because of the regressive nature of the Maryland tax rates.

Schedule B: Interest and Dividends

This is another item that almost everyone has to deal with and it is the easiest way to run afoul of the IRS because they now seem to think that they know how to match up the items you report with the ones they get from the banks. It pays to be explicit here by creating a separate account for each form 1099 that you receive.

I brewed up my own Schedule B, once again providing a couple of extra cells so that the interest income could be properly separated on the Maryland return.

Maryland Form 502

In order to build this form I "cloned" the federal form 1040 and then edited it to create a form for our combined separate return. This worked reasonably well because the Maryland form is basically an extract of the federal form. I left off a lot of the lines that we don't use, but I did adhere to a naming convention that should make future revisions simple.

Form Editing in General

Unfortunately my register file (and, therefore, the tax forms that I created) use a pretty individualized set of names for incomes,

accounts, and expenses, so that it would be difficult for someone else to make use of the system that I have created. It would be nice to have a "rename" utility that could be used to rename entries in register and tax files. This could open up a cottage industry for tax form creators so that we would not all have to reinvent the wheel when the special interests decide, as they inevitably will, to go for more "tax reform" and "tax simplification".

Until the rename utility comes along it might be desirable to come up with some standard names to facilitate interchange of register and tax files. As I mentioned in my November '87 article, it would be nice to have a means of importing transaction data from an ASCII text file so that people could convert from one accounting system to another more easily. There are no "block" functions in the tax form editor, which makes life a little tedious when the geniuses in Washington and Annapolis guarantee themselves continued employment by revising the forms from one year to the next.

Tax Tables

PHTAX's way of creating tax tables is very simple and logical. I had already created these when I did my preliminary workup, and it only took a couple of minutes to work up one for Maryland as well.

Unfortunately the folks at the IRS assume (probably correctly) that simple arithmetic is beyond anyone who makes less that $50,000 a year. This leads them to include a four column table that contains something over 1000 lines. This means that there are actually something like 50,000 tax "brackets". "Simplification" indeed. PHASAR cannot deal with this automatically. This is not serious when doing a projection because the differences between the published table and the tax rate schedules that are used to build the PHASAR tables are very minor.

For the final form you will have to fill in at least one cell value by hand if you use the tables on pages 26-31 of form 1040.

PHTAX allows you to make very sophisticated projections of tax liablities because it works with estimated data where actual data is unavailable. You also have a lot of flexibility in setting up and evaluating alternative investment and income strategies.

In Conclusion

The work that I did to prepare a nearly "final" tax return took the better part of a snowbound Friday. Now if our banks and employers would just get me all the little pieces of paper I need I could file for our refund.

I still hope to create a "generic" register file and tax form that I can share with other WAACE members.

PHTAX's "build your own forms" approach and its tight link to your basic everyday home accounting data are very nice. The error trapping in the tax forms editor was very impressive. I found it easy to go back and forth from from editing to "browsing" through the computed results. Computation and printing speed were both very satisfactory.

I was impressed in my November review and I remain impressed, particularly in light of the fact that the developers are working hard to make a good product even better.

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STOCKMARKET

Speculate and Accumulate

Review by Frank Sommers

The words *STOCKMARKET* blaze yellow and red over the evening New York City sky. The view, presumably from your newly acquired duplex penthouse apartment, is of a city stacked with skyscrapers, glowing with still-burning office lights, the taller ones topped by spires of red-tipped aircraft-warning towers. The feeling is rich and the scene reeks of action.

From that title screen you move to the Big Board where your fate awaits. The sharp delineation of the board with 20 of the best from the Dow Jones Average quickly tells you what the stocks opened and closed at, and the change up or down. With $50,000 "start-up money" in hand you elect "Buy", click down to the first stock of your interest, and click your way into the buy screen. There you are told again what the stock costs and asked how many shares you wish to purchase. A greedy note signals that by selecting "1" you can have as many shares as your entire $50,000 can buy. Why not! And suddenly your blinked back to the big board where 500 shares of AT&T stare starkly out at you, and the bottom line says you have "0 dollars" in your account.

Why not! Your great uncle always said, "If you don't speculate, you don't accumulate." And AT& T is as blue, as a blue chip stock can be. So with nothing more which to buy you hit the "E" for end key. The scene changes. A large marquee in the night sky above the city, tells one and all, "MARKET IS CLOSED". Time to rest and wonder, "Will the markets in the Far East go up while you sleep, and will London follow suit before Wall Street opens the next morning? Now it's not just one city, anymore; it's all linked together, all the markets on the planet, except Sri Lanka where they only sell local stocks.

The day dawns with a towering Statue of Liberty in the foreground and the city sunny and alive before you. The big marquee in the sky says, "MARKET IS OPEN." And is it. The blue jacketed brokers are their before you in a blizzard of quote slips working the pits, blinking monitors records the transactions, and an awesome black box blinks white words: BULL MARKET.

Your blood speeds up. The ticker tape at the bottom of the screen is chattering out it's message of joy and folly, "AMERICAN AIRLINES LAYS OFF 20% OF ITS WORKERS ..... AA DOWN 12 ..... US STEEL UP 9 ..... COCA COLA UP 18 ..... WESTERN UNION UP .....", but where is AT&T? The tape stops and blink, there's the Big Board. Your eyes race down the list. General Motors, Alcoa, Ford, Mobil, Sun Oil, and there - AT&T and it's up 26!

Now you may think that fantasy land is confined these days to the White House, but don't believe it. Your little head is counting up that money, 500 x's 26 and already your calculating how to spend your "new" $13,000. Heeding Uncle, you sell all your AT&T and plow the entire $63,000 into Lockheed. Who says you should be diversified to protect against a nose dive in any particular stock? After all, "If you don't speculate, you don't....".

By the seventh day (or round) when some are resting, you're just hitting your stride. Your holdings now total $437,800! You're beginning to wonder why your wasting your time with a game, and not at the bank getting a new mortgage, and on to a real broker. But lets show em. AT&T you notice, dropped 40 points after you sold, and then another 40 in two days. At 20 it's a certain steal. You sell everything and pow! you now own 21,890 shares of AT&T. Just a 5 point move up and you'll have another $100,000 plus. You could pay off the mortgage... No, wait, that's the other world.

It's night again. Then its morning. "THE MARKET IS OPENING". The ticker tape is clicking out your future. You've learned now to watch it. It signals which way things are likely to go, even if the box says, "Bear Market". "LEGISLATORS ARE STILL 108 BILLION SHORT OF WHERE GRAMM-RUDMAN-HOLLINGS MANDATE DEFICIT CUTS MUST....INVESTORS ARE PUSHING STOCKS UP WAY BEYOND REAL VALUES....FORD IS DOWN 80....." What is going on? You don't go from a Bull to a Bear market in one day. Yesterday..., but wait AT&T could still go up, or at least hold. The tape stops. The screen changes. There it is. It's impossible, but there it is, the white stripe, declaring, "AT&T is bankrupt"! And so are you. There goes the BMW...

That's how many felt last October 19th on Black Monday, the day Wall Street fell apart. *STOCKMARKET* is a whale of a program. Every uncle should buy it for every nephew as a stocking stuffer, and a pathway to a different future.

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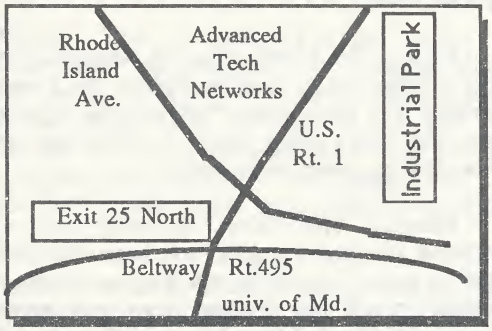

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TEST DRIVE

No – Profit Car Agency

Review by Frank Sommers

A glance at the odometer of your Turbo 911 Porsche suggests you monitor your radar as you roll - you're 80 mph over the 55 miles per hour speed limit. On your left, the sky and clouds slash by, the only retaining wall between you and the bottom of the thousand-foot drop. Four feet to the right the grinding wall of the mountain teases at you to touch it. At that speed one scrape and you go twirling into the beyond. Suddenly around a curve a truck looms like a brontasaurus. The windshield cracks as you swerve left, strike a road marker and pitch off into Doom Canyon.

A nightmare? And now you will awaken? No! This is *TEST DRIVE*, and you've just totaled the $35,000 Porsche the car agency let you take for a spin up "The Top of the Rock", and turned yourself into "camel meat".

But like half a cat, you've four lives left. So you hit the button and crank 'er up again. Stick forward, hit the shift button, listen to the whine til it reaches a pitch signaling a second shift. Don't look down at the richly appointed panel. You've tried that and the mountain has bitten you in half, leaving you with another cracked windshield - a subtle notice to "restart" your engine. Finally, you're shifted into overdrive and your taking the mountain curves at a speed approaching insanity. What a car! Tight. Sensitive to the touch, almost ready to dart out from under you. A sign flashes out at you that a sharp curve is dead ahead. With the speed of summer lighting you down shift. Just as you hit your stride again, a blinking light at the left visor causes a double down shift and a fight to get the car down to the speed limit. The patrol car pops up in your rear vision mirror, but after monitoring you for a few seconds pulls ahead and disappears up the road.

Fine. The first time it happened you were not shifty enough and he pulled in front of you, flashed his pull over "bubble gum lights" at you, and you rammed into his rear end doing 90. Thus ending your test drive.

Reboot! That first accident was probably because you had thought you were Captain Zerox. You've taken the $135,000 Ferrari Testarossa and driven it off the dealer floor and up the trail to see if it would really do 185 mph. Too much car, far too much car for the novice.

TEST DRIVE, Accolade's newest offering for the ST, was the software equivalent of the cabbage patch doll of yesteryear - a Christmas sell out. After loading, you find yourself looking at split screens with "spec sheets" in the bottom half giving all the data including price, top speed, dimensions, etc., as well as an acceleration-curve graph at the right. The top is a bright sharp metallic glowing picture of the car in question. Five of them to choose from, ranging in top speed from 135 to 185 and from $35,000 for the Chevy Corvette but add another $100,000 for the top-of-the- line Ferrari.

Make your selection, and 45 seconds later the program has loaded and you're seated inside your hot, hot machine on the mountain road, ready to try to make it to the top in the fastest time possible. Along the way, four mandatory gas stops, give you a reading on your time and speed and "hints" about what lies ahead, e.g. "Watch for Radar", or "On Coming Traffic" (that one usually drives you over the cliff or up the tail pipe of the car suddenly in front of you). The object of the game? To get to the top in less than "five cracked windshields" or tries, and with the highest score possible, i.e. fastest.

For those of you former 8-bit'ers who knew and loved *POLE POSITION*, the first of the race car programs, this will be something of an eye opener, if not an ear tuner. The graphics are fine. The details of the dashboard exquisite and the signs, scenery and obstacles make full use of the power of the 32 bits and thus add markedly to the realism of the race, e.g. you see the bug before it hits and spots your windshield. The sensitivity of the steering wheel (joy stick) will keep you awake and focused. Minor bothers are the loading time after car selection and a sound stream that doesn't quite match the graphics. The Mega ST causes the program to crash, irregularly, when you try to restart after a "cracked windshield". But as your confidence builds and you "trade up" the challenge increases as does the demand on your reflexes.

The game is a true winner. Try it and be one yourself.

[*TEST DRIVE, Accolade, 20813 Stevens Creek Blvd., Cupertino, CA 95014, $39.95*].

ALADDIN

A Disk Magazine for the ST

Review by Bill Moes

When computers were first becoming popular, many eons ago back in the early 1980's, the consensus of knowledgeable observers was that computer technology, and the ability to send information over wires to another monitor, would mean the end of the printed page. Well, as any computer Sportin' Life will tell you, it ain't necessarily so.

The first additional purchase most owners make, after a joystick or two for the intellectual challenges we all seek, is a printer. And the printer is usually well used. Before that printer, we'd buy paper in a neat 50-sheet tablet for our typewriters; now it's bought by the truckload, zillions of connected sheets at a time.

But the idea that information would be presented in new ways hasn't really been eliminated. A unique method of delivering information, the disk magazine, has evolved. Let's take a look at one of those for the ST.

THE MAGAZINE. THE NEW ALADDIN is a disk magazine with a heavy emphasis on light-hearted and humorous articles and stories, and it includes an excellent variety of top-quality graphics. For this review, I looked at two issues (287 and 387).

Each issue has a main article. One issue included an interactive, somewhat satirical, "interview" with the Reagans (you know the ones, they live on Pennsylvania Ave. somewhere). I found this a bit slow-moving and dull, due to the way it was handled. Others may find it unusual and enjoyable. The main article on the following issue, however, I really enjoyed. Its title: "Are You A Martian?" Yes, I am, thank you. I'm not sure where my kids are from, though.

The issues shared many similar themes. Each had very short fiction stories. There was a recipe with each issue, and the recipe could be printed out (another truckload?). A celebrity interview was available (Kris Kristofferson or Tippi Hedren). There were software reviews, brief but reasonable. Movie reviews included digitized scenes from the movies reviewed.

Each issue included interactive quizzes for you to answer; you don't usually get to go on until you key in the correct letter. And there was a nicely-done series on computer art. An ongoing Q&A session with something called Professor Djinn was available (send in your questions!). And "brainteasers" were there for those after that kind of challenge. (My brain, like my daughter's hair, was teased into the abyss long ago.)

Each issue had a game. One was a sliding tile puzzle; another was one of those "who can take the last gumball" type of thing. I found them somewhat dull. Maybe the games will improve in future issues. And there were other areas of interest, too, including animated cartoons.

There were about 16 sections in each issue. You'll certainly find some of more interest than others. But this is really a "family" magazine and others in your family will enjoy sections you would find of little interest. Unlike disk magazines you've seen for other computers, there are few games or programming utilities/tutorials here. Instead, you'll find a well-rounded offering with items for varied interests.

The graphics are uniformly excellent, with a wide variety of styles; closet sketchers could find some door-openers. There is some use of animation, usually color cycling, handled well. Music and sound effects are playing at appropriate times.

You'll need a double-sided drive, color monitor, and 512K of RAM to read ALADDIN, which comes on two DS disks. Disk swapping on a one-drive system is kept to a minimum. The price: a 6-issue subscription for $79.95 ($13.33 per issue). Individual issues may be available at Atari dealers ($19.95). ALADDIN is also available for the Atari 800/XL/XE computers (CN Nov. 1986).

SUMMARY. This is family fun and could quickly interest computer-hesitant family members into taking a look. I would prefer seeing games of higher quality and number, but the articles are fun and relaxing, while the graphics are slide-show quality. The magic from ALADDIN's lamp could light your world for many hours.

[Disk Publications, P.O.Box 515468, Dallas, TX 75251-9990 (800)345-6467]

ALGEBRA 1

Equations and Problems ... Practice! Practice!

Review by Bill Moes

A real understanding of math means you'll need to have a solid understanding of algebra. Algebra is used in business and industry, by scientists and engineers and many others. The first actual use of algebra was probably about 4000 years ago in Egypt, but it didn't become an object of study until Diophantus of Alexandria wrote the earliest treatise on this important math area (AD 250). Now it's the subject of an ST software program.

ALGEBRA 1 is very direct in its presentation. You'll first load one of the disk's two programs: Linear Equations or Verbal Problems. The screen, with GEM menus, is divided into three sections, with a large area in the center for problems and help.

In Linear Equations you'll select from five types of problems as you solve for "X": simple equations (4X=24), basic properties, combining like terms, clearing parentheses, or fractional equations ((X+6)/(X-8) = (X+10)/(X-3)). There are 66 types of equations in this program.

Verbal Problems, the second program on the disk, includes word problems in 10 areas: age, number, geometry, motion, mixture, coin, work, investment, percent, and lever. There are 30 different types of story problems.

The two programs share many similarities. Each problem type offers three parts: a description, an example, and the problems. The numbers within each problem are randomly chosen, offering the chance for understanding by plugging some new digits into a familiar equation. Help is available in three steps. You can save your work and scores to disk, or those scores can be printed out. You can also print out worksheets for a selected problem type, for practice away from the computer. It's possible to have the answers and help clues also printed. While the programs come with parameters already chosen, you can vary these (no. of problems in a set, range of digits in the problems, etc).

ALGEBRA 1, a program suitable for students in about grades 7-12, does not pretend to be a complete tutorial in algebra. The software states that a basic understanding along with a supplemental text are necessary. In addition to the obvious use by students, many adults who were not particularly successful -- or alert -- in their own high school algebra courses may benefit. The disk, not copy protected, goes with either color or monochrome monitors. It's all text, black and white. There are no games, graphics, or sound effects. This is straight forward, splash it in your eyes, learning. Written in GFA BASIC (compiled) by Charles O. Gauthier, ALGEBRA 1 is published by MichTron. The documentation is a 12-page booklet.

The goals of ALGEBRA 1 are relatively modest and tightly defined. The goals seem successfully met. The great number of problems possible with random numbers gives important learning practice. The problem levels allow you to progress carefully through material that may be tricky otherwise. The help clues are reasonably complete, although there are times when a little more explanation would be comforting. The chance to save scores to disk encourages the idea that learning is a progression of interrelated steps, not separate staircases. And printing out practice problems with plenty of blank space for solutions could be of great benefit.

I did notice, though, occasional problems, some of which seem related to the use of random numbers. An example: one equation, .13X - .19X, gave an answer of -.05999999X. Yes, it should have been -.06X. A text explanation on a color monitor was cut off by the display window. You'll press <RETURN> for help, instead of the more logical <HELP>. It was inconvenient to go from using the keys to the mouse and back to the keys. This could have been prevented with keyboard alternatives to the GEM mouse/menu use. The example problem in each section explains how the problem is to be solved, but never gives a final answer. The screen is not always redrawn after using a desk accessory, although any menu selection will do that redraw. The documentation is typical MichTron minimalism.

ALGEBRA 1 ($39.95), the first in a related series of learning programs, is not to quicken a pulse or blast an alien. It would be useful for schools and for individual students, students who realize that real learning requires real effort.

[MichTron, 576 S. Telegraph, Pontiac, MI 48053 (313)334-5700]

ABZOO

From Alligator to Zebra

Review by Roger Abram

The press release that accompanied the review copy of ABZOO claimed that by using this program "your child will be far ahead of classmates in both reading skills and computer literacy, skills which are of ever increasing value in today's world." Now, if I was taught correctly in my younger years, I would interpret that sentence as meaning that not only is computer literacy becoming more important in today's world, but so is reading! Hmm, could have sworn reading has always been on the top of the list. Anyway, I have a daughter in first grade who is learning to read, so this sounded like an ideal program for her.

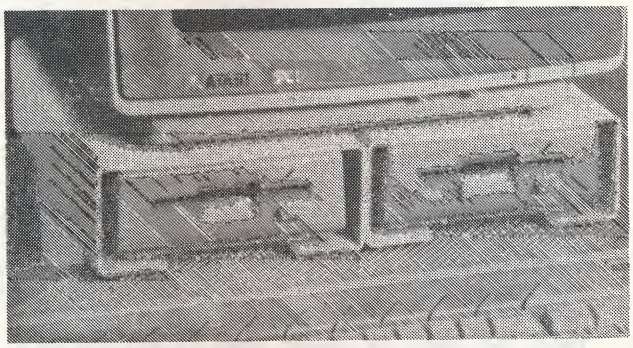
There are three levels of learning in ABZOO. In the first level, the letters of the alphabet are displayed on the monitor as they appear on the computer keyboard. The child presses a key and a drawing of an animal whose name begins with that letter appears on the screen.

In the second level, the name and picture of an animal are displayed for a few seconds and then the picture disappears. The name of the animal stays at the top of the screen and an arrow points at each letter as the child types in the name. After each letter is typed, a different portion of the picture appears. When the word is completed, the full picture is displayed.

The third level is similar to the second except that blocks are shown representing letter positions and the name of the animal has to be typed in from memory.

Now this may all sound pretty boring to you, but we already know how to read and spell (or at least load *Thunder*). The pictures and the music playing in the background are enjoyable to a six year old who can now brag that she gets to use "Daddy's computer" and knows how to spell elephant and xiphosuran.

ABZOO, by MichTron, comes on two disks: one with realistic drawings of animals, the other with more whimsical and cartoonlike images. The animals used on both disks are the same except for a few, so your child will really only learn how to spell 35 words. The disks are not copy protected and the graphics were created using DEGAS ELITE. For ages 3 to 6. Color monitor only. List price: $29.95.



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RELAX AND ENJOY

By Joe Kuffner, (c) 1988

THE GOOD, THE BAD AND THE UGLY

Welcome to a new year of RELAX and ENJOY. I hope the winter season has been reasonably kind to you (IF you deserve it, that is) and that software presents galore, made up at least some of your Christmas morning loot.

In this month's column, like the title implies, I've some interesting games on which to report. A new program from Accolade, hot from the presses following their blockbuster hit, TEST DRIVE, is PINBALL WIZARD, a design-your-own, play-your-own, pinball-machine simulator. I'll let you pseudo-psychologists figure out which part of the column's title refers to this program.

Also on the agenda for this month, is a new, periodic feature in my column on programs that don't warrant any attention, let alone your hard-earned cash. This month I'm calling it THE BAD AND THE UGLY. Also, I'm reducing the frequency of my PD-of-the-Month selections so that I'm not pressured into reporting on anything but the very best in the Public Domain world. Look for my selection(s) next month.

PINBALL WIZARD

Accolade, a company synonymous with innovative, high quality software has scored with mega-hits such as TEST DRIVE, a fabulous road-racing game (look for F. Sommers' review), and MEAN 18 golfing simulation. Their most recent release, PINBALL WIZARD, though not in the same league as the incredible masterpieces named above, fills a niche on our ST computers.

Owners of 8-bit computers recall the PINBALL CONSTRUCTION SET by Bill Budge, as one of their most used pieces of entertainment software. In the early eighties (pun intended), the concept of designing and playing pinball on your computer was imaginative and revolutionary. The software was a giant success. How does PINBALL WIZARD fit into the late eighties (or to carry the earlier pun to fruition, the early sixteen-ies)? Let's examine what this program has to offer and then draw our conclusions.

Programmed out of Europe by Infogrames, of PROHIBITION fame, PINBALL WIZARD offers both the ability to play a realistic game of pinball, and also the ability to tailor your own playing surface using the construction mode. The quality of programming and attention to detail is immediately noticeable. The manual is surprisingly concise but definitely effective as it covers the basics of playing pinball as well as the features of the construction set.

Four demo games are provided on the disk. As the game and the construction mode are loaded into the computer concurrently, any games created using PINBALL WIZARD construction mode, require the program to play. Switching from construction to play mode is as fast, and easy, as a mouse click.

The construction mode has the usual pinball machine parts available to "drag" onto your playing surface. Namely, bumpers, flags, rails, knock-downs, roll-overs, flippers, buttons and a whole range of assorted paraphernalia. In addition to this, a draw mode allows you to decorate your table as well as as obstruction to the table (for lanes and other impassable features). Although you won't find the features of fullfledged art packages within PINBALL WIZARD, the use of lines, fills, pencil and brush modes, combined with auto-magnification provide a surprisingly effective range of design tools. Sixteen color choices (hence, low res only) are available to accent your creation.

As far as playing features that can be modified, comprehensive is the word to describe them. Everything from slope of the table, elasticity of the bumpers, speed of the ball, tilt sensitivity to the special combinations for free games and extra balls. You can also adjust the scores for each of the objects on the table as well as bonuses. Finally, the number of balls per game is chosen (max 5) and the key/mouse choices are made. A nice detail is the ability to change the keys used for "nudging" the table as well as using the flippers.

However, all of the design features are only useful if the game is playable. Indeed it is. Up to four players can compete on any of the provided, or designed pinball machines at any time. I personally preferred using the keyboard for game controls. The sound effects and play are certainly realistic and the game is a thrill to play - even by inexperienced friends. This is probably the nicest feature of the program - its ease of learning to play. It's very intuitive.

There are only three minor disappointments in PINBALL WIZARD. The first, is that the defaults for playing a game are "mouse control" and "3 balls" per game, no matter how you set up the game. These have to be changed manually before starting play if you prefer keyboard control and 5 balls per game (as I do). The second minor point has to do with the flags after they are knocked down. In arcade pinball machines, once all the flags are down, they generally bounce back up without you having to lose a ball. This helps increase your score and fun. PINBALL WIZARD drops a flag and leaves it dropped until there's a new ball entered into play. Finally, the third disappointment is the lack of anything original or unique about the pinball game which would take advantage of the increased power of a sixteen-bit computer over an eight-bit, as well as enhancing the features of older programs.

Well, as usual I have mixed feelings about the program. There is no question that the software is well programmed and documented and that its fun to play. If you miss your PINBALL CONSTRUCTION SET from your old computer, then PINBALL WIZARD is a worthy replacement for your ST. This is the situation into which I fit myself. However, if you gave up your old computer, or are thinking of upgrading, in search of bigger and better software on your ST, I don't think that there is enough in this program alone to warrant the jump to the ST. It is good software, though. If you're looking for an arcade game that will provide hours of enjoyment and that provides the ability to change, I think you'll find PINBALL WIZARD both relaxing and addictive. [The GOOD]

THE BAD AND THE UGLY

I've purposely refrained from "spilling the beans" on the title of the software package that wins my vote for this award. In keeping with this, I'll describe to you what I was expecting from this, yet unnamed, game program. In the last issue of CURRENT NOTES, my public domain choice was STONE-AGE DELUXE. I felt that it was an enjoyable PD version of an 8-bit favorite BOULDERDASH from FIRST STAR SOFTWARE, a first rate game program. Well, in passing, I came across a commercial product of the same genre, from XLENT SOFTWARE, programmed by John Coffey. Advertised as, "an exciting multi-level arcade action adventure graphics game", as the packaging reads, "You must help Diamond Mike tunnel through rock and dirt to collect treasures, while avoiding ... ". Sound familiar?? NEVER judge a program by its cover!

To quote an anonymous colleague, "The only fun I had [while playing this program] was hitting system reset!" Unfortunately, I must agree 100 percent.

Topping my list of dislikes of the program is the blocky, crude animation. It reminds me of some TINY BASIC programs I saw on the 4K BALLY computer I had in 1980. Other notable features include the beeping sound effects of movement and low quality graphics. Its poor error trapping results in a medium res boot-up that gets you the familiar double image. One good thing about the program is that the disk is reusable. Oh, yes, before I forget, the program also comes with two bonus games which aren't worth mentioning. The program is DIAMOND MIKE. STAY AWAY. [Both BAD and UGLY]

When buying software at your local retailer, insist on trying it first. It's the only sure way to get good value for your software dollars. Until next month, put away those productivity tools once in a while, play a game. You'll be better for it.

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DAVE SMALL & DAN MOORE

(Continued from page 18)

After the Translator, what's next in Data Pacific's future?

Dave: We're going to have a card that installs in your IBM/Clone that will let you read/write/save your files directly to a Macintosh disk. There are a few others working on a simular unit but I hope to have our's out first, the work we've done with the Sac and now the Translator should have given us an advantage in being familiar with the Mac's format. We had toyed with finishing Paper Clip Elite and marketing it ourselves. Unfortunately the rights to PCE were transferred along with most everything else from BI to Electronic Arts so that was out. Currently we don't have any real plans for future ST related products, but one never knows what may turn up tomorrow.

Dan: My current project is doing the software for our next project. We're designing a modification of the Translator for use in offices that use both MS-DOS and Mac systems. It will allow the user to write a program or file on his IBM and save it directly to a Macintosh formatted disk. This will GREATLY simplify the process of transfering files between the two machines.

Have you given any though to a hardware Apple // emulator?

Dave: I hadn't even considered it. Hmmm, I wonder. Of course you'd have to copy the Apple ROMs over to it and I don't think they would go along with that. We were able to avoid that with the Sac because we use the actual ROM chips themselves from the older Operating System. You 'might' be able to get a clone OS from someone, I hear that Central Point Software was working on one.... that's an interesting idea. Hmmm..... No, I really can't see us working on something like that but it is an interesting idea for somebody.

Dan: That would be almost impossible to do, the Apple // uses a different disk access format than the ST (or most any other system for that matter). Trying to get it to work with the ST's Floppy Disk Controller would be a bear. Then you have the problem of different CPUs and 16/32 bit chip accesses. The IBM and Tandy get by because they install an entire 'clone on a card' to emulate the Apple. Besides, Apple is VERY protective of their operating system and wouldn't let us use it at any price. It might be possible to licence a clone OS like Franklin's or Laser's, but it just wouldn't be worth the work or expense.

With all the 'heavy-duty hacking' you had to do getting the Magic Sac to work, you have to be two of the leading experts on the ST's hardware today, can you tell me some of the specific things you like and dislike about it?

Dave: The monochrome and color displays are excellent, and while a lot of people compare it to the Amiga its monochrome display is definitely superior. In terms of creating a rock-solid monochrome display Atari just doesn't have any competition. The DMA port is very good and very quick, though I do wish they had gone with a standard interface intead of their custom SCSI. On the other hand, it's so fast it'll outrun a RAM disk. In fact the DMA bit rate is a Laser bit rate for laser printers. The driver is floppy technology sort of maxed-out with a few bugs in it that slowed the transfer speed a little, but most of those bugs have been fixed in the new Mega ROMs. The 68000 is very fast and Atari did the interleave much better than Apple did the Mac's. This meant that the Mac lost up to 20-30% of its effective speed as compared to the ST. The SE's interleave was re-designed to improve this and has brought its speed closer to the ST's. The circuit board is very low cost which was obviously a high priority. There are no buffers so the RAM chips (among others) are very sensitive to stray voltages. This is why it's so easy to fry your printer support chip if you change printers without powering down first. On the other hand Jack can make these things for a very low cost so I can go out and buy one without going bankrupt. The best description I've heard of GEM and TOS is "lack of standards". Because there is a lack of an 'integrated' OS and standards, programs don't all have to work the same way (like they do on the Mac). In fact most programmers spend most of their time re-writing much of the STs OS to better suit their needs. It's frustrating having to re-cover the same ground all the time on the Mac, but once you understand how the Mac OS works you've got a good handle on any programming you want to do with it. GEM appears to me to be fatally flawed, it's loaded with bugs and there's little hope of it's ever being really fixed because Atari just doesn't have the software engineers, time or money to totally re-do it. What Atari wants and needs to do is get a 68020 box out ASAP.

Dan: The biggest thing I don't like about the ST's operating system is that basically it's just a patch. You've got a filing system that is basically MS-DOS, which is alright, and a windowing system just laid on top of it and not really related to the way the DOS works. The biggest problem is that TOS/GEM just are not smooth or well thought out. They didn't have the 4-6 years Apple spent on the Mac or even

the 2-3 years Commodore had with the Amiga. Considering they had less than a year to do TOS it's amazing it works as well as it does. Even the standard they went with (GEM) has it's problems. There's a lot of lack of forethought in it and it shows. If they could have spent the time Apple or Commodore had, there would have been major differences. If they could spend the time now to totally re-do the OS they would have to make so many changes that they'd loose compatibility with the current OS. One of the things I really do like about the ST is it's DMA port, it's faster than either the Mac or most of the IBMs. It's basically a very fast machine. They did a good job of designing a fairly cheap hardware system but left it unpolished. It's got a fairly dirty bus and is stuck with a 'locked-box' design that makes expansion almost impossible. Its fairly easy to get into TOS and do your own custom routines, but more often than not you're forced to do it to get it up to speed. The Mac and Amiga don't really let you do this, but their built-in routines are good enough in the first place.

If you're familiar with programming on the PC it's not difficult to work with the ST since there are a number of simularities between them. You can get programming on the ST in a few weeks, with the Mac or Amiga it will take you months (but their systems tend to more capable to use once you've learned them).

What do you think of the new Mega series?

Dave: Well, the Mega is basically an ST with more memory and the new ROMs to speed up RAM clears and disk speeds. That's about the extent of it, GEM hasn't been improved and most of the bugs are still there. They made just enough changes in the new ROMs so that a number of programs break now. My only question on the Megas is 'what are you going to do with all that memory?' You can get 4 meg on a Mac, but there isn't any need for it even with switcher running. And a 'real' switcher for the ST isn't in the cards because GEM just isn't up to it. To be honest, with the speed of the DMA port a hard drive is faster than a ram disk and a much better buy than a Mega, not to mention not having to worry about loosing everything to a power spike. As for the competition, for the price of a Mega4 you can get a Mac SE, the Mega has more RAM and a faster CPU but the Mac has the name recognition and more software. Talking about software, Microsoft is avoiding both the ST and the Amiga like the plague while they made major investments in the Mac from its begining. In fact you could say Microsoft's support was what kept the Mac alive in it's early years and opened the doors to small businesses for it. It's not that big a deal to port software from the Mac to the ST. I don't understand their refusal to offer support for the new 68000 machines.

Dan: Too much and not enough. Too much money and not enough improvements. The Mega is closer to what the ST should have been from the beginning, but there are still too many bugs in it's OS to really make it as a business system. And the price!!!!

Does Data Pacific have any plans for the Mega's expansion bus?

Dave: No, and to be honest I've not really heard of any yet from anyone else.

Heard anything about other emulators for the ST?

Dave: Paradox is putting the finishing touches on a 286 (IBM AT) emulator right now. This is a hardware unit that will connect to the ST at the DMA port and use it as a terminal only. It'll have it's own ports, slots, RAM and CPU. It will use the ST's monitor though. Atari's own IBM emulator is still up in the air, with conflicting reports as to it's existence or continued development. pc-ditto is out now and seems to work very well. It's faster than an IBM PC in it's I/O but much slower on CPU intensive operations. The Atari 8-bit emulator is out in the public domain now, but like I've said before it's still too slow and incompatible to be used seriously. Like pc-ditto it's a fantastic piece of programming but the 68000 and the ST just lack the horsepower to do a software emulator justice.

Where do you see Atari going?

Dave: Atari will go wherever they can make a profit. I don't mean this badly, Jack saved Atari from bankruptcy but his prime directive (like any true businessman) is profitability. Sometimes there is a 'penny-wise, pound-foolish' attitude at Atari now that may come back to haunt them. An example is the lack of buffers on the ST. The RAM chips and some of the ports are VERY sensitive to stray voltage, which is why you can fry the printer support chip if you swap printers without powering it down first. I've heard that Steve Jobs is talking to Jack about producing his NExt computer until he can get his own production system going, with Atari benefiting by gaining access to some of NExt's support systems. This should prove interesting, the dreamer and the hard-headed businessman. I've been talking to some of NExt's tech people and it sounds like a very impressive computer.

Dan: I see Atari going to the money. The Tramiels are in the business to make money, not to

sell Atari computers to Atari owners. Some of the things they'll develop will be of interest to us (the current Atari owners), things like the CD Rom and Laser printer. Others will be of no interest what ever, things like game machines, VCRs, TVs, calculators and so-on. By the way, some of these are starting to appear in Federated now. I also expect them to continue announcing and showing a lot of interesting hardware (such as the Transputer) that will never see the light of day since they can't make enough money off them.

If you were 'King of Atari', what would YOU do?

Dave: The days of the 68000 being competitive are about over with the release of the Mac II and 386-based systems. I'd look into a 68020 system with a 68881, lots of RAM and whatever Operating System would work and sell best with it. The RISC transputer co-processing system could do it too, giving a 68000 the ability to compete very nicely with a 68020. I don't really think the 68030 is ready for use since there are still some 'bugs' in it and the unit cost is still pretty high.

Advertising is a must, something that Atari has not been doing lately for it's computer line. This may change if the stories we hear from Atari are true. I'd be sure to add buffers to the ST's I/O ports and try to clean up GEM and TOS, kill the current bugs and make it a more solid interface to work with.

Dan: I'd hire a competent team to totally rewrite the OS from scratch. Something that would take longer to write but work better. I'd start publishing 'bug lists' for developers like Apple and Commodore do for their developers. Atari's attitude seems to be "bugs? What bugs??" I'd also raise the price of the machine and upgrade it's quality, add buffers, improve the feel of the keyboard (the layout is fine), and a better power supply so the system isn't running at it's limit all the time. I'd add a standard I/O port instead the the one they used for the DMA port. The keyboard handler has some bugs in it I'd like to change along with the time sensitivity of the mouse reading. I'd like to see a 68020 system, but I don't see it being able to maintain full ST compatibility. I'd also want a higher resolution system with real colors, 640 X 400 monochrome is great for home use but can't really cut it in professional circles. I'd also re-do the blitter Atari chose. From what I've seen, it isn't close to what we were expecting. Either the chip itself isn't capable enough or the software drivers for it can't handle the job right. The Amiga's blitter is much better in what it does than Atari's, I don't know what happened because they had enough time for the job. Even so, any blitter is better than none. I'd also do some work on GDOS. The biggest problem with GDOS is the lack of a selectable font loader, I'd want to add that. Currently GDOS has to load ALL the fonts and font sizes the RAM will hold at boot up and that's not a very good system. GDOS's graphics handling is really quite good and not that difficult to implement but was never really designed to handle text outside of doing labels and such.

How do think the ST, Mac and Amiga stack up against each other?

Dave: The Amiga has wonderful sound and graphics but costs a lot more and has much slower floppy and hard disk speeds. The Mac has an excellent OS and software while the ST undercuts everybody on price and has pretty good software. It pretty much matches the Amiga on graphics, I've seen very little software on the Amiga that exceeds what the ST is capable of matching. At most the Amiga is only an incremental improvement over the ST even with the custom graphics chips. It was originally designed as the ultimate video game system and that shows in it's graphics and sound but as a computer there's really not that much of a difference. I dislike and avoid the 'religious' wars over 'my computer is better than your computer', they're a waste of time and accomplish nothing.

Dan: The ST is obviously the cheap cheap kid on the block. That isn't all bad, it is more affordable than the other two. And in some areas, such as the DMA channel, it's superior to the others. But it's OS isn't nearly as polished as the Amiga's (with over three years of development) and isn't even in the same league as the Mac's (with five to six years of development). The ST has a tremendous monochrome display, one of the best on any computer. It's color support is good, though nowhere near what the Amiga can do. But then a lot of people are probably not interested in paying for that extra capability. I agree with Dave about not wanting to get involved with the 'religious wars' over computers. What may be the 'right' computer for me may have no connection what-ever to what is right for someone else. Every machine has it's flaws and it's good points. The one thing that really bothers me are the half-truths and outright lies that are used by some to prove that "my" system is better than "yours". 99% of the people making those statements have never used the other machine and have no idea of what it can, or can not do.

(Continued on Page 60)

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DAVE SMALL & DAN MOORE

(Continued from page 58)

Describe a typical day at Data Pacific.

Dave: (laughing) Crazy, something new every day. Does Minoxidal really work? If I start now would it help? Replace what I've been pulling out over the last few years?

The two of you get along like brothers, how did you get together?

Dave: Strictly because of my calm, laid-back, easy going nature. (and believe it or not he said it with a straight face, it wasn't easy but he managed it <grin>)

Dan: It's all Dave's fault that I'm involved with Ataris at all. Some of his and Sandy's (his 'one and only') articles in Creative Computing are what finally decided me to get an 800. Of course if I had known him then..... <grin>

Do you see any real future here in the States for the Atari 8-bit?

Dave: No, and that's really a shame because it's still my favorite machine. The sales of software for it have been so slow that it's kept new software from being written. There's a slim chance that the new XEGS may change that, at least I hope so.

Dan: I can't see any future for the 8 bits other than as game machines. The sales of 8 bit software, including games, are pretty bad. New software just isn't selling. Either the owners are old time users who have all the software they want or they are buying new computers. There is still a group of people who buy and use new software, but there just aren't enough of them to make it worth spending a year or so to write a major program. Game conversions can be done fairly quickly, so those may continue to sell. It's a shame, I started on the 8 bits and I really don't want to see them come to an end.

How do you like Denver as opposed to California?

Dave: There's really no comparison. I love Denver, though not as much as I used to with all the recent development and smog. Even so, here I can point my nose at the mountains and two hours later I'm at 13,000 feet with blue sky, no smoke and total quiet. When I was living in San Jose you just couldn't do that.

Dan: I've been here going on 12 years so I'm something of a naturalized native. I could have gone to the Bay area and worked for Apple or somebody and maybe paid off some of my back bills, but I'm willing to make some sacrifices to stay here. Yes, I like Denver.

What do you do for fun when you're not here pounding on a keyboard?

Dave: Well.... My wife will be having a baby in April.. That's certainly one answer. But seriously, I love to drive up into the mountains and just enjoy nature at it's unspoiled best.

Dan: Mostly I read. I have about 7,000 books (they're all over my basement) and I usually buy about two or three new ones a week. Most of them are novels, but a lot are textbooks of various types. After all, how else can I be sure I know everything about everything??? <grin> I also like to travel, though that's not as much fun as it once was. Most of my trips now are business (like doing shows for DP), rather than just traveling to look around. Going into the mountains is still great though, it gives me a chance to relax.

Summary

Dave Small is a unique individual, with an equally unique sense of humor. He loves to surprise people with the unexpected, like being interviewed for TV wearing jungle fatigues and a 'Solder of Fortune' T-Shirt. One time he walked into the office dressed in combat fatigues and armed with a belt of 50 caliber (spent) rounds and tossed a (practice) hand grenade onto the secretary's desk, he then ran down the stairs counting down from ten. In anyone else this would seem strange, but for Dave it's quite normal. <grin> He's one of the rare individuals who can find the funny aspect of even the worst situation, which is probably why he's still (reasonably) sane after two years of making a go of Data Pacific. By the way, the secretary (Marsha) got her revenge. Together with the rest of DP's staff they ambushed Dave, tied him down and preceded to..... well, maybe I'd best leave the rest to your imagination, but it was poetic justice at its highest considering the interesting 'memos' he had been sending around the office the day before.

Dan's quite different from Dave, besides being the proud owner of a full-fledged beard that is. He enjoys a good discussion with almost anyone and in addition to his talents as a programmer, he's a well-spring of facts, information and computer trivia. In spite of that, Dan tends to come off a bit more reserved with

a somewhat quieter sense of humor than Dave. I suspect this comes in handy handling the tech calls for DP. In just the short time I was there I got to overhear some of the strangest questions from new Sac owners. A word of advice for owners of the Magic Sac, please read the manual that comes with the Sac, the manual that came with your ST and pick up a good generic Macintosh book. Look there for answers first because most of the calls I heard could have easily been answered that way. The folks at DP want to help in any way they can and don't mind in the least answering the tech calls. But keep in mind that each 5 minutes spent on the phone is 5 minutes not spent on improving your Sac.

Currently Dan is planning on expanding into the non-Atari market for some of his personal future projects. Though the market there is MUCH larger the the ST market he admits that competition will be fierce since there are thousands of developers there already. He's thinking of looking into a new series of re-compilers to produce still further compacting of code. I hope he does one for the ST. He just finished porting the 'Analize' spreadsheet to the ST from the Amiga and showed it to me. Very impressive, if you're in the market for a good spreadsheet on your ST you might want to give it a look.

While I was there I had the chance to look at some of the projects Batterys Included was working on when the disaster struck. Dan showed me one of the later versions (but not the latest) of his Paper Clip Elite. What can I say? It looked like a FANTASTIC word processor, one that would have offered multiple GDOS driven fonts, intermixing of Degas/Neo pictures with text and ALL of the features we have come to expect from a powerful and full-featured word processor. Dan re-wrote most of the GEM calls and routines and really speeded the program up. The results were worth it. He also modified the graphics interface by designing his own custom icons for disks, files, clipboard and printer output. Like most of his work Dan prefers a white on black rather than black on white display that took me by surprise but quickly grows on you. Though re-written, the GEM desktop, drop-down menus and mouse interface are familiar and work normally, just a lot faster (and offer alternate keyboard commands). In all actually PCE isn't that far from being ready to ship. But after two years of labor, only to loose the chance of release, Dan's pretty much given up on it. Electronic Arts has expressed some interest in PCE, but Dan isn't too eager to start back up on it again without some very solid support and some reliable financial encouragement.

It's sad that such outstanding programs as Paper Clip Elite and the other BI based products will never see the light of day now. Since BI's demise their authors have had to move on to other projects in order to feed their families, with most of them moving away from the ST to more profitable systems. The result is both obvious and sad, with several potentially outstanding programs lost due to the financial problems of the parent company.

Well folks, that's my report from Data Pacific. I hope you found it interesting, I know I enjoyed writing it. So until the next time my word processor crosses your path, keep on computing.

Gregg (Computer Curmudgion) Anderson

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GOING ONLINE

By Ed Seward

FLASH 1.51

What Can You Do With It?

FLASH 1.5 ARRIVES

In case you haven't heard the current version of FLASH has passed 1.5. If you own FLASH and are using 1.12 or earlier then send for your upgrade (send $5 and your orginal FLASH disk to Antic).

Some of the new features added in this newest version include the following: five connect failed strings supported; Compuserve B protocol; batch ymodem (automatically detected by FLASH); a "LOG" command to write text to the capture buffer; word wrap in the capture buffer; reformat a paragraph or block of text; improved ANSI graphics character support; and execute programs from within FLASH (NOT multitasking).

Several new commands have been added to the FLASH arsenal. These include a LOG" command to write text to the capture buffer; 26 user defined strings; much improved WAIT command; a JMP command; conditional branching; labels for use with the JMPs; QUERY for input through user defined dialog boxes; and user defined alert boxes with up to three buttons.

FLASH 1.12 and 1.51 both support a hardware hangup command. If you are using a 2400 baud modem, then make an AUTO 'DO' file or add the following command to your existing AUTO 'DO' file: >SEND AT&D2¦. With the change in the FLASH WAIT command, whenever the string the WAIT command is looking for contains the '>' character, you MUST place the string in quotes. This is also true when using a '¦' for any purpose other than to terminate a command. For greater readability, I place all the strings in quotes.

When writing a 'DO' file, also keep in mind that FLASH now checks the syntax of the entire 'DO' file before actually executing any commands. A good way to take advantage of this is to run your new 'DO' files before going online so as to catch some of the typos. There is also a slight delay before execution of the 'DO' file. Although I have not had any problems caused by this, it should be kept in mind.

Making A FOREM BBS DO File

One of the interesting things that can be done with 'DO' files is to create other 'DO' files. Let's see how it is done. When the file below is run, it will ask for your name and password for a BBS and the name you want to assign to the desired 'DO' file. MAKEFOR.DO will then save the created 'DO' file to disk using the specified filename.

```
>** MAKEFOR.DO version 1
>** creates & saves autologon for FoReM BBS¦
>QUERY "Enter name or alias for this BBS" $A¦
>QUERY "Enter your password" $B¦
>** the two c/r below are to assure no extra
>** lines in the created DO file¦
>LOG¦
>LOG¦
>MK CL¦
>MK TOP¦
>LOG ">RT¦"¦
>LOG¦
>LOG ">ED XM CZK¦"¦
>LOG¦
>LOG ">MO AT¦"¦
>LOG¦
>LOG ">PY NO¦"¦
>LOG¦
>LOG ">SB 1¦"¦
>LOG¦
>LOG ">DU FU¦"¦
>LOG¦
>LOG ">AS 3¦"¦
>LOG¦
>LOG ">AS /)¦"¦
>LOG¦
>LOG ">WA Return¦"¦
>LOG¦
>LOG "¦¦"¦
>LOG¦
>LOG ">WA ?¦"¦
>LOG¦
>LOG ">** response below assumes no graphics¦"¦
>LOG¦
>LOG "N¦"¦
>LOG¦
>LOG ">WA ""User)>""¦"¦
>LOG¦
>LOG "$A¦"¦
>LOG¦
```

```
>LOG ">WA word:¦"¦
>LOG¦
>LOG "$B¦"¦
>LOG¦
>MK BOT¦
>QUERY "Enter desired name for DO file" $C¦
>SA BL $C¦
>TYPE "¦ DO file" $C "marked in buffer/saved¦"¦
```

For those that may not want to type all this in, this 'DO' file (as well as the bigger one below) are available on the WAACE ST BBS and on the new CN Telecom Disk (No. 201).

The Power of the New Flash

After writing a few MAKE type 'DO' files, I wanted to write something that would be more useful. This has resulted in GENIE_DL.DO. The original version just downloaded a list of files from GENIE. This version asks you if you wish to log off GENIE upon completion of the downloads. It then asks if you wish to deARC the downloaded files, and, if yes, what the full path and name for ARC.TTP is. GENIE_DL will proceed on it's way and will let you know when the requested actions are completed by ringing the bell until you press a key.

****

TWO WARNINGS:

First, be careful about available disk space. Second, it is VERY EASY to run up your GENIE bill using this 'DO' file as it is quite easy for it run for several hours!

****

```
>** GENIE Auto Download DO version 1.1¦
>** ¦
>** $C "E:\UTILITYS\ARC.TTP"¦
>AL "[2][Log off of GENIE upon¦
  completion of downloads?][YES¦NO]" $L¦
>AL "[2][DeARC all downloads with¦
  ARC in the name?][YES¦NO]" $D¦
>IFI $D "NO" JMP NoArcPath¦
>QU "Enter FULL path & name of ARC.TTP¦
  ex: E:\UTIL\ARC.TTP" $C¦
>** the line above can be deleted if line 3
>** of this DO file is changed from a comment
>** to the actual full pathname of ARC.TTP¦
>L: NoArcPath¦
6¦
>OPEN BLK:¦
>IF ~OP JMP ABORT¦
>** If block open fails, abort¦
>INPUT $F¦
>** Next two lines check for pathnames¦
>IFI $F ":" JMP Sub2¦
>IFI $F "\" JMP Sub2¦
>L: Cont¦
>WAIT "file?"¦
>SE $F¦
¦¦
>WAIT "or <Q>uit."¦
D¦
>WAIT "receive file"¦
>INPUT $F¦
>DL XM $F¦
>WAIT "<RETURN>?" 60¦
¦¦
>INPUT $F¦
>L: Next¦
>IF EOF JMP Exit¦
>IF F JMP SkipOver¦
>INPUT $F¦
>JMP Next¦
>L: SkipOver¦
>** Next two lines check for pathnames¦
>IFI $F ":" JMP Sub3¦
>IFI $F "\" JMP Sub3¦
>WAIT "(Y/N)?"¦
Y¦
>JMP Cont¦
>L: Abort¦
>TYPE "There was a problem - did not work!"¦
>B2¦
>END¦
>L: Exit¦
>WAIT "(Y/N)"¦
N¦
>WAIT "<H>elp?"¦
>IFI $L "NO" JMP Working¦
>** if yes, logoff GENIE; else stay online¦
BYE¦
>PA 60¦
>HG¦
>IFI $D "YES" JMP Working¦
>** if no, end DO file; else deARC downloads¦
>B2¦
>END¦
>L: Working¦
>** this is the start of the deARCing¦
>OPEN BLK:¦
>IF OP JMP OK¦
>TYPE "DeARC aborted - 2nd open block failed"¦
>TYPE¦
>B2¦
>END¦
>L: OK¦
>INPUT $F¦
>L: DeARC¦
>IF EOF JMP Exit2¦
>IF F JMP NOblank¦
>INPUT $F¦
>JMP DeARC¦
>L: NOblank¦
>IFI $F ":" JMP Sub4¦
>IFI $F "\" JMP Sub4¦
>INPUT $F¦
>IFI ~$F "ARC" JMP DeARC¦
>EXEC $C X $F¦
>JMP OK¦
>L: Exit2¦
>TYPE "deARCing completed"¦
```

```
>TYPE "¦"¦
>B2¦
>END¦
>** subroutine to set path¦
>** Sub2 handles path changes on the first
>** line of the block during d/1¦
>L: Sub2¦
>DPATH $F¦
>INPUT $F¦
>JMP Cont¦
>** Sub3 handles path changes during the
>** d/1 looping¦
>L: Sub3¦
>DPATH $F¦
>INPUT $F¦
>JMP Next¦
>** Sub4 handles path changes during the
>** dearc looping¦
>L: Sub4¦
>DPATH $F¦
>INPUT $F¦
>JMP DeARC¦
```

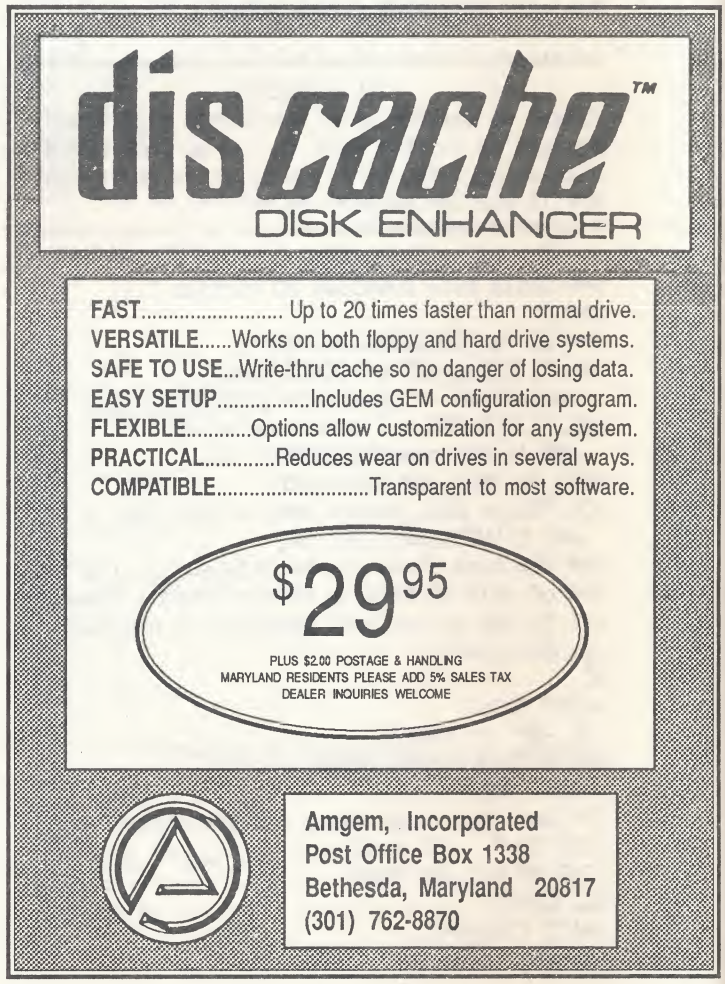
INSTRUCTIONS FOR USING GENIE_DL.DO

Yes, all of that up there is really just one 'DO' file. So, how do you use this beastie? This 'DO' file reads through a marked block in the capture buffer. A block for GENIE_DL.DO may contain four types of lines: blank lines which are ignored but may improve readability; new default path requests with just the new desired path; file numbers of the files you wish to download from a GENIE Round Table (SIG) or the FULL filename listed in the file directory; the filename you wish to use on your system. Quite often you need to edit the filename down to a shorter length for your own system. A sample block is illustrated below:

```
F:\
4717
ACEXMAS1.ARC
4716
GENESIS.ARC
4713
SPELL23.ARC
4712
FSPH-TEC.ARC
E:\FLASH\DO\
```

The first line ("F:\") changes the default path to the F drive. The lines with numbers are the responses to prompts on GENIE telling it which file is the next file to download. The line immediately following each line with a number is the filename desired on your system. The last line ("E:\FLASH\DO\") just restores my original default path.

An easy way to prepare a block for use with GENIE_DL.DO is to load into the buffer (or capture) the portion of the file directory that interests you. Use of the search option ties in great with this when looking for a particular type of file. I normally disconnect from GENIE after capturing the file listings and then edit them. The quickest way to set up a file entry is to position the cursor immediately to the right of the the file number and hit return. Then hit delete once (to get rid of the leading blank on the filename line and edit the filename down to a legal length if necessary. Next hit return right after the filename and hit <Shift-Delete> twice to get rid of the two lines of information about that particular file. Don't forget to include any path changes that may be necessary and that the deARCing portion of the 'DO' file looks for 'ARC' as part of the filename. If you constantly have ARC.TTP on a hard disk or ramdisk, then just change line 3 so that it contains the path and name of ARC.TTP and delete lines 6 and 7.



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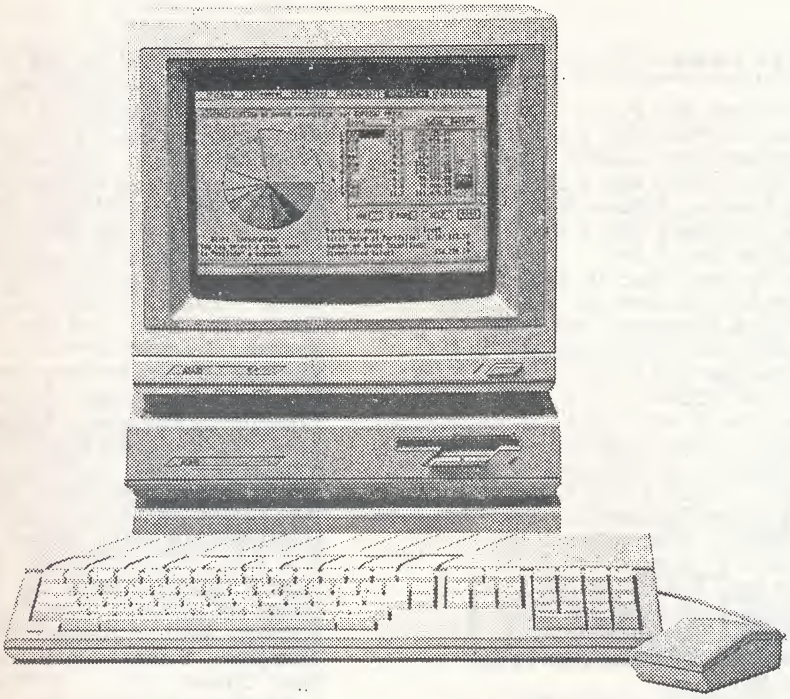

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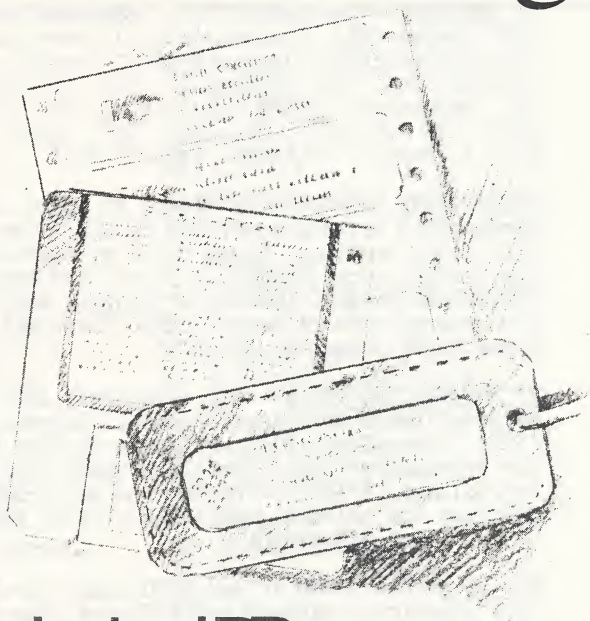

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*100 designs on disk *Line box, circle & mirror drawing commands *Clipboard to cut & paste between designs *Compatible with Printmaster designs

Mail List Manager
*Search, sort, delete & modify records *48 character comment field *Ability to merge databases *Store thousands of names *Freestyle label with 4 lines of text in varying styles

Additional Features
*Works with most 9 & 24 pin printers *Print up to 11 lines of text on disk labels and index cards *Mix print pitch and style on the same line by using special printer codes *Print disk directories

Current LabelMaster owners may update to Elite by returning their disk and $5 to Migraph.

MIGRAPH

LabelMaster Elite is a trademark of Migraph, Inc. Printmaster is a trademark of Unison World

Migraph, Inc.
720 S. 333 St., (201)
Federal Way, WA 98003

To order call:
206 838-4677

CLASSIFIED ADS

ST SOFTWARE: Time Bandit ($8), Borrowed Time ($9), Degas ($6), Mindshadow ($9), Personal Pascal 1.11 ($17), Techmate ($6), Computer Almanac ($6), Data Manater ST ($23), OO-Topos ($), Goldrunner ($12), Printmaster ($9), Word Writer ST 2.0 ($25), Mousepad ($3). Kyle Alons, R.R. 1, Boyden, IA 51234, 712-725-2543.

ATARI 130XE. ATR8000 w/co-Power 88 board and 2 Tandon DSDD Drives; runs CP/M MS-DOS. Commodore 1702 color monitor. Epson MX-80 w. Graftrax + Atari 1020 color plotter, 2 Atari CX85 keybads. Atari DOS, MY-DOS, DOS-XL, Languages, word processors, lots of books. $500 takes all. Phone Frank Jones 301-593-1056.

ST SOFTWARE FOR SALE. All originial, in original boxes with instructions. Paintworks ($20), Starglider ($15), Printmaster Plus ($15), For PrintMaster Plus: Fonts & Borders ($13) and Art Gallery II ($12). Postage on any order $1, I'll pay the balance. Karl Baker, P.O. Box 7, Center Point, IN 47840.

FOR SALE: Atari 800 XL and 1050 disk drive - with joysticks, cables, and software (Paperclip, Atariwriter, spell-checker, cartridge games, and misc. utility disks) - will sell only as a package for $150. Also Atari XM-301 modem with software - $10 with package or $25 separately. Call Steve at 703-347-2547.

FOR SALE: PR Connection, with modem and printer cables ($50), Star Fleet I ($15), ST Pro Sprite Designer ($15). Bob Reitz, 218 N. Fourth St., Sunbury, PA 17801, 717-286-5901.

WANTED TO BUY: Back issues of COMPUTE's Atari ST magazine. (Magazines wanted, but not interested in disks.) Ralph C. Turner, PO Box 1822, Fairfield, IA 52556, 515-472-2293.

FOR SALE: ST software, Artic Fox, Dac Accounting and Payroll, Macromanager, ST Tool Box (disk utilities), Sundog, Aliants, pc-ditto, also public domain disks. All at 40 percent off original price. Call David at 703-373-5483 evenings. Also Commodore SX-64, two modems, much more.

MODEM FOR SALE: Avatex 1200 baud modem. Hayes compatible. Excellent condition, $50. Call Donald at 202-829-1379.

FOR SALE: Complete, upgraded, 520ST Color System. Has TOS on ROM, Internal clock with battery and memory upgraded to 1 Meg. Hardware includes SC1224 Color Monitor and two (2) SF354 SS Drives. I'm throwing in all my software which includes: Antic's Flash and Disk Doctor; dBMAN; Copy II ST, Hitchhiker's Guide To The Galaxy, and more. Asking $595. Call Fred Dahnke 703-352-3784.

520ST. SC1224 Color Monitor, 2 SF314 DS/DDs, Modem, Clock/Calendar, Single-switch ST-Station (houses drives & pwr. supplies), lots of software, hardly used. $895/offers. Call Fred (703) 522-3265 (H), (202) 523-8985 (W).

FOR SALE: Atari 520ST monochrome monitor, single-sided disk drive. Call Harry Sanders (301) 587-1323 (H).

**********Computer Success !!!**********

MODEMS- MITAC
100% Hayes Compatible
Free online time worth $200,speaker,volume, auto answer,dial,tone, pulse,Bell 103/212a,full& half duplex,panel lights
2400 BAUD $ 158
1200 BAUD $79.99
modem cable $9.99

PRINTERS
Star NX1000- 183
Panasonic1080-169
Demo Star Gemini 15x ~~$599~~ $229 !!
Demo Star Powertype DAISY WHEEL-LETTER QUALITY $189.99
printer cable $9.99
call for other printers

5-1/4" ST Disk Drive
by PARADOX-read or write PC disks on the ATARI ST computer!! Turn ST into PC Clone!! 360k,DSDD-only $179.99
1 ONLY-DEMO 1050 WITH HAPPY BACK UP $225
PC DITTO- $68.99
520 or 1040 ST-call price

Demo Amdek Color Monitor-list $599-1 only $199
ST COMPUTEREYES-$199

MAGIC SAC PLUS-$108, TRANSLATOR 1-$257, Professional-$388,Epstart-$40

ST- PC Hardware Emulator-hooks to ST-gives you fast PC clone with your ST,4.77/8,by Paradox,run PC programs faster-$339/$459 with 1- 5/14" drive-taking orders!

TO ORDER: send check or money order to: Computer Success, PO BOX 3031, Wayland Square, Providence, RI, 02906. Phone 401-751-0038. MASTER CARD AND VISA ACCEPTED-BUT ADD 5% FOR BANK FEE.ADD FOR SHIPPING: MODEMS,DISK DRIVES PACKAGES,PRINTERS $6: SOFTWARE $4 FOR UP TO 4 TITLES. $5 FOR OVER 5 TITLES. ALL SALES FINAL. ALL ITEMS NEW FACTORY FRESH WITH FULL WARRANTY.WE TAKE TRADES AND BUY USED EQUIPTMENT-CALL FOR QUOTE-WE BEAT ALL PRICES AND HAVE LARGE SELECTION NOT IN THIS AD !!

NOVATARI XL/XE LIBRARY

Announcing twenty two new disks since we last advertised here! The price for mail orders is $3 per disk plus $1 for postage and handling for every 3 disks. Send checks, payable to NOVATARI, to Alan Friedman, 5951 Heritage Square Drive, Burke, VA 22015.

Any user group librarians who are willing to trade library disks write or call Roy Brooks, 4020 Travis Parkway, Annadale, VA. 22003, phone 703 750 0146. We trade with groups all over the country.

DEMO
1: Miscellaneous
2: Movie Maker Clips
3: Heavy Metal
4: Miscellaneous
5: Desktop DOS + Demos
6: VizPics
7: Mandelbrot factal graphics

EDUCATION
1: Mathematics
2: Primary Language
3: Teachers' Toolbox
4: Word Builder 1.0
5: Animated stories
6:* Geography
7:* Bio+Chem with touch typing
8:* Basic Math
9:* Higher Math and Language
10:* The Cell
11:* Spelling Bee

GAMES
1: Text Adventures I
2: Gambling
3: Simulations
4: Mazes
5: Parlour Games
6: Graphics
7: Action! Games
8: Arcade Look-A-Likes
9: Text Adventures II
10: Text Adventures III
11: Surf's Up
12: Ski King
13: 20 BASIC Games
14: Super Quiz A & B
15: Two Graphic Adventure Games
16: Space Lords
17:* Pinball Games
18:* Machine Language Games

LANGUAGE
1: Fig-FORTH
2: ACTION! source codes (cf. GAMES 7)
3: ACTION! Graphic Demos
4: ACTION! Utility Programs
5: ACTION! Modules #1
6: ACTION! Modules #2
7: BASIC XL-REF Base
8: ACTION! Modules #3
9: KERMIT telecom
10: TURBO BASIC
11: Pascal Sampler
12: Searcher XL Turbo
13:* Turbo Basic for 400/800
14:* C Language

MUSIC
1: TV/MOVIE Themes
2: ROCK
3: JAZZ
4: BASIC with animation
5: Ams Player: 12 Rock Songs
6: Ams Player: 14 Movie/Video Themes
7: Ams Player: 16 Oldies
8: Ams Player: 18 Classics
9: Ram130 AMS Beetles' Songs
10:*MUSIC COMPOSER Songs

UTILIITY
1: Miscellaneous introduction
2: Printers
3: DOS 2.5
4: Directory & Label Printer
5: Graphics Trilogy
6: Copymate XE
7: SCOPY sector copier
8: Translator Disk
9: 256K Upgrade
10: Daisy-Dot NLQ
11: Dos 2.6
12: MACHDOS 2.1
13: Print Shop Editor
14: Easy Find
15: Print Shop Icons
16: TEXTPRO 1.1
17: Print Shop Icons
18: Touch Edit
19: DOS 4.0
20: Graphics
21:* 130XE upgrades + Utilities
22:* HI-RES 130 (graphics)
23:* Rainbow DOS
24:* Font Master
25:* 3-D CAD
26:* ADELAIDE SYMBOLIC DISASSEMBLER
27:* DB's & Spreadsheet
28:* Graphic Utilities & Pics
29:* String Magic

TELECOMMUNICATIONS
1: 850 Interface
2: 835/1030 Modem
3: MPP Modem
4A: AMODEM 7.2
5A&B Chameleon Terminal Emulator
6: 1030&850 Express (3.0 & 2.1)
7: To be announced
8:* AMIS XM10 BBS program
9:* AMODEM 7.4 + Rverter

Current Notes ST Library

[All *CURRENT NOTES* disks are $4.00 each. Add $1.00 for every 6 disks (or fraction thereof) for postage and handling. (Foreign orders add $2.00/6 disks.) VA residents add 4.5% sales tax. Order from CN Library, 122 N. Johnson Rd., Sterling, VA 22170. All disks generaliy jam-packed. Disk numbers with a "D" indicated double-sided. If you ever have a problem with a CN disk, just return it and we will gladly replace it.]

NEW DISKS FOR FEBRUARY

#197: Music Studio Song Disk 3. 65 songsw/player (C)
#198: Music Studio Song Disk 4. 75 songs w/player (C)
#199: Music Construction Set Songs. 32 songs w/player (C/M)
These three new disks are loaded with songs for music fans. All include a PD "player" so you do not need Music Studio or Music Construction Set to listen to the music. All music plays through the monitor speaker and/or through the MIDI ports to a synthesizer. The previous Music Studio disks are numbers 60 and 114.

#200: Telecom Demo Disk. 3 ARC'ed working demos (with some missing features) of new terminal programs: VTX, KIS and ST Talk Professional. An excellent opportunity to get the feel of any of these 3 programs. The ST TALK demo alone makes this disk a must.

#201: Flash & Interlink Updates. All the files on this disk require either Flash 1.51 or Interlink. Programs to create Flash DO files, to auto download and auto logon (Compuserve and Genie), to update Flash 1.51 to version 1.52. Interlink files for ANSI emulation V1.12, and 'TXF' transfer protocols (including MULTIXY which allows file transfers in the background).

#202D: Cyber Demos and Utilities. 4 animations: CHASERS, two paper airplanes chasing each other change into rough bird images and back into paper planes; ELMSK31C, demos future features of the Cyber system; SCOUT, scout ship orbiting a planet; TEXTURE, another demo of future features. Contains routines to create Shadows and Splines within CAD-3D 2.0. (C) DSDD & 1MB.

#203: Spectrum Animated Balls Demo. 5 metal balls, hanging from a rack, with the first and last alternately swinging out and in. (C)

#204: Spectrum Space Pictures No. 1. Crab, Earth, Moonflag, Orion, Nasa_p01, Nasa_p02, Nasa_p03, Patch1. SPSLIDE8 program. (C)

#205: Spectrum Space Pictures No. 2. Apollo09, Apollo10, Astro1, Earth1, Earth2, Earthris, Lem. Includes SPSLIDE8 program. (C)

#206: Utility Disk #20. Ver 2.05 of BOOTUP (set screen and text colors on bootup and save in separate desktop.inf files for each resolution); Epson font ed (create fonts for printer); calculator and limited screen plotter in one; fast disk copier. Graphics: convert IFF-type picture files to compressed Spectrum 512 format ('SPC'); Show Spectrum 512, DEGAS, and NEO pictures all from one slide program; convert AIM files to DEGAS format (and DEGAS to AIM).

#207: Statistically Accurate Baseball. Although there are no graphics, this shareware game will be a favorite of baseball fans. Includes data for four teams: '62 Giants, '70 Reds, '84 Cubs, and '86 Mets. (C)

#208 Game Disk No. 10. Milborne (by the programmer that wrote Monopoly for the ST); G_Ranger (low-res arcade game); NIM (GEM version of this well-known game); Trucker (text- based simulation game, drive an 18 wheeler on tight schedule); and Darts (low res dart-throwing game). (C)

LANGUAGE DISKS

BASIC
#22 - Sample Atari Basic
#130 - GFA Basic No. 1
#168 - GFA Basic No. 2
#169 - GFA Basic Help Disk
#170 - GFA Basic No. 3
#184 - XFORMER (Atari XE Basic Emulator)
#191 - GFA BASIC NO. 4 GFA "Tip" files #8-#11, paint program, 3-dim tic-tac-toe (mono), variable cross reference, line numbering.

C LANGUAGE
#8 - Sample C No. 1
#33 - Sample C No. 2
#82 - Sample C No. 3
#123 - Shareware C Compiler
#133 - Sample C No. 4
#156 - Sample C No. 5
#171 - Sample C No. 6

CPM
#86 - CP/M-80 Emulator TOS Disk
#87 - CP/M-80 Disk #1
#C1 - CP/M Telecom Disk
#C2 - CP/M Utility Disk
#C3 - CP/M-80 Games

FORTH
#53 - ST Forth 83
#71 - Forthmacs Ver 1.1

GEM
#148 - GEM Tutorials No. 1
#149 - GEM Tutorials No. 2

ICON
#124 - ST ICON Language V6.3

MODULA-2
#31 - Pascal & Modula-2
#83 - Sample Modula-2 No. 1
#92 - Sample Modula-2 No. 2
#110 - Sample Modula-2 No. 3

PASCAL
#31 - Pascal & Modula-2
#49 - Sample Pascal No. 1
#93 - Sample Pascal No. 2
#111 - Sample Pascal No. 3
#177 - Sample Pascal No. 4

SMALLTALK
#97 - Little Smalltalk

XLISP
#181 - XLISP Version 2.0

PICTURE DISKS

TINY COLOR DISKS (1-8)
#40, #41, #42, #51, #52, #65, #75, #96
TINY MONOCHROME DISK #48

TINYPICS SERIES
#108 - 1: Ghost Busters/Raiders
#109 - 2: Empire Strikes/Shuttle
#118 - 3: Science-Fiction
#119 - 4: Transport
#120 - 5: Cartoons No. 1
#137 - 6: Cartoons No. 2
#138 - 7: Animals
#146 - 8: Famous Folk
#161 - 9: Vehicles No. 2

CLIP ART
#147 - Color Clip Art No. 1
#158 - Mono Clip Art No. 1
#159 - Mono Clip Art No. 2
#160 - Mono Clip Art No. 3

SPECTRUM
#182 - Spectrum Picture Disk
#203 - Spectrum Animated Balls Demo
#204 - Spectrum Space No. 1
#205 - Spectrum Space No. 2

UTILITY DISKS
#18 - Utility No. 1
#25 - Degas Utility Disk
#30 - Utility No. 2
#36 - Desk Accessories No. 1
#61 - Printer Drivers
#63 - Utility No. 3
#72 - Utility No. 4
#73 - Utility No. 5
#81 - Utility No. 6
#94 - Utility No. 7
#95 - Utility No. 8
#102 - Utility No. 9
#107 - ST Ram Disks
#113 - Utility No. 10
#117 - Desk Accessories No. 2

Current Notes ST Library

#121 - Utility No. 11
#127 - Font Editors/Loaders
#131 - Utility No. 12
#132 - Utility No. 13
#144 - Utility No. 14
#145 - Utility No. 15
#150 - 1st Word Printer Drivers
#154 - Utility No. 16
#155 - Utility No. 17
#162 - Hard Disk Utilities
#166 - Utility No. 19
#185 - Disk Utilities
#206 - Utility No. 20

GRAPHICS DEMOS

#7 - Graphics Demos No. 1
#64 - Doll Animation
#66 - Globe Demo
#67 - Ball/Bird Demo
#85 - Sound & Graphics Demo
#90 - Shinny Bubbles
#105 - CN Movie
#128 - Steely Boink
#129 - Spheres! Demo
#151D- Space Probe
#172 - Juggler Demo
#173D- Cyberscape demo
#174D- Star Trek Animation
#183 - SuperNEO Demo
#193D- CYBER Demos No. 2: (Sphere, Backflip, Bounce, and Anticado.
#202D- CYBER Demos No. 3: (Chasers, Scout, Elmsk31c, Texture)

MUSIC PROGRAMS

#34 - Deluxe Piano Player
#60 - Music Studio Songs No.1
#78D - Oxygen
#79D - Foreign Affair
#99D - Matt's Mood
#114 - Music Studio Songs No.2
#134 - ST-Replay Demo
#196 - CHRISTMAS DISK
#197 - Music Studio Songs No.3
#198 - Music Studio Songs No.4
#199 - Music Construction Set Songs

TERMINAL PROGRAMS

#43 - Terminal Programs No. 2
#84 - ST TERM Demo Disk
#88 - Uniterm V1.7B
#142 - Terminal Programs No. 5
#167 - Terminal Programs No. 6
#180 - Starnet BBS
#194 - VANTERM, Ver 8.6.
#200 - Telecom Demo Disk (VTX, KIS, ST-TALK)
#201 - Flash 1.51/Interlink Utilities

GAME DISKS

#21 - Game Disk No. 1
#37 - Game Disk No. 2
#54 - Mono Games No. 1
#62 - Hack Adventure Game
#80 - Mono Games No. 2
#100 - Game Disk No. 3
#101 - Game Disk No. 4
#112 - Game Disk No. 5
#122 - Game Disk No. 6
#139 - Mono Games No. 2
#140 - Game Disk No. 7
#141 - Game Disk No. 8
#153 - Eamon Adventure Games
#164 - Game Disk No. 9
#178 - Breach Scenarios
#179 - Kid Fun
#187 - Wheel of Fortune Ver 2.0.
#188 - Mean 18 Course1
#189 - Mean 18 Course2
#190 - Mean 18 Course3
#207 - Statistically Accurate Baseball
#208 - Game Disk No. 10

APPLICATION PROGRAMS

#14 - NEOCHROME
#59 - VIP Templates
#152 - 3-D Control
#163 - Editors (ProEDIT & ConTEXT)
#165 - Library Programs
#175 - ST Writer Text Ver 1.90
#176 - ST Writer GEM Ver 2.30
#192 - MICROEMACS, Ver 3.9 1/4. Latest version of this popular text editor. Includes MicroSPELL, a spelling checker for use with MicroEMACS.

COMMERCIAL DEMOS

#27 - dBMAN Demo Disk
#28 - dBMAN Tutorial
#39 - Arcade Demos
#106 - Smooth Talker Demo
#135 - Shanghai Demo

ST MAGIC DISKS

These disks are for use with the MAGIC SAC Macintosh emulator. All disks are in Magic format and tested to work with the Magic Sac.

#M0 - Magic Sac, Version 4.52

TELECOM

#M2 - Telecom Disk No. 1
#M28 - Red Ryder Terminal Program

UTILITIES

#M3 - Utilty Disk No. 1
#M5 - Disk Librarian
#M8 - Desk Accessories No. 1
#M9 - Utility Disk No. 2
#M11 - Print Utilities
#M18 - Desk Accessories No. 2
#M27 - Utility Disk No. 3
#M43 - Utility Disk No. 4 (DiskDup+, MacSnoop 1.03, RamDisk+1.4, ResTools 2.01, Oasis 2.01 (HFS), Font Librarian (HFS), Switch.

GAMES

#M4 - Game Disk No. 1
#M6 - Game Disk No. 2
#M7 - Game Disk No. 3
#M15 - Game Disk No. 4
#M17 - Dungeons of Doom
#M19 - PCS Games No. 1
#M20 - Game Disk No. 5
#M21 - Game Disk No. 6
#M23 - Vampire Castle
#M24 - Deep Angst
#M25 - Game Disk No. 7
#M29 - PCS Games No. 2
#M30 - Game Disk No. 8
#M31 - Black Wizard
#M34 - Game Disk No. 9
#M36 - Castle of Ert
#M40 - HACK adventure game. Disk includes manual with full documentation.
#M41 - Radical Castle, graphc/text adventure.

GRAPHICS

#M10 - Graphics Disk No. 1
#M22 - Graphics Disk No. 2
#M25 - Graphics Disk No. 3
#M12 - MacBillboard (MacPaint clone)
#M33 - Clip Art No. 1
#M38 - VIDEO WORKS PLAYER NO. 1. PD player for Video Works animated screens. Includes11 sophisticated movies.
#M39 - DEMO DISK NO. 2 Demo versions of Anatomiser (educational program to teach human anatomy), DeskPaint (a MacPaint clone), and SuperPaint (MacPaint & MacDraw clone).

FONTS

#M13 - Font Disk No. 1
#M14 - Font Disk No. 2
#M16 - Font Disk No. 3
#M32 - Font Disk No. 4
#M35 - Font Disk No. 5
#M43 - Font Disk No. 6 (16 fonts)

CN PC LIBRARY

These disks (all double-sided) for use with pc-ditto. They also work directly on MS-DOS machines with 3.5 inch drives. (Disks marked with an * have 720K).

#P1 - PROCOMM Ver 2.3. Terminal Program.
#P2 - PC-STOCK and CARDEX
#P3 - QEDIT, fast text editor.
#P4 - PC-OUTLINE, Ver 1.05.
#P5 - AS EASY AS (Lotus 123 Clone)
#P6 - PC-DBMS, Ver 1.2, FLOW CHART UTILITY, and MORTGAGE CALCULATOR.
#P7 - EASY BASE and HOME BANK BOOK
#P8 - TIME SAVER and PFM, Personal File Management System.
#P9 - DRAW POKER, V1.0 and MS-TREK V1.0
#P10 - ZIP - The Ultimate Utility
#P11 - A.D.A. PROLOG, Ver 1.90
#P12 - FREE WORD, Ver 1.0 PC Word Processor
#P13 - VISIBLE PASCAL.
#P14 - KIDGAMES (Collection of games geared toward ages 2-10.)
#P15* - FAMILY HISTORY is noteworthy among computerized genealogy programs. (DSDD)
#P16* - PC-FILE III allows you to quickly re trieve data, change it, perform queries, and prepare reports. (DSDD)
#PC17 - PC TUTORIAL. Education package that covers the basics of a 1st course in computer usage and the IBM PC DOS.
#PC18 - PC DOS HELP. Provides online HELP facility for DOS commands.
#PC19* - PC-WRITE. Powerful, easy to use word processor. (DSDD)

ANALOG/ST-LOG DISKS

#A1 - April, 1986
#A2 - May, 1986
#A3 - June, 1986
#A4 - July, 1986
#A5 - August, 1986
#A6 - September, 1986
#A7 - October, 1986
#A8 - November, 1986
#A9 - December, 1986
#A10 - January, 1987
#A11 - February, 1987
#A12 - March, 1987
#A13 - April, 1987
#A14 - May, 1987
#A15 - June, 1987
#A16 - July/August 1987
#A17 - September, 1987
#A18 - (Maybe, some day ...)

Send a SASE for a more detailed complete listing of the CN Library.

WAACE NEWS

NOVATARI

Northern Virginia Atari Users' Group

President.....	G.Weatherhead.....	703-938-4829
VP-ST.....	Ian Charters.....	703-845-7578
VP-8BIT.....	Alan Friedman.....	703-425-0575
Treasurer.....	Curt Sandler.....	703-734-9533
Secretary.....	Edmund Bedsworth..	
Membership.....	Earl Lilley.....	703-281-9017
Program Chairs		
8-BIT.....	Randy Ingalsbe....	703-644-0159
.....	Nina Kraucunas....	703-250-3572
VAST.....	Jim Stevenson.....	703-378-4093
.....	Duane Shie.....	703-430-9693
Telecom SIG....	Ed Seward.....	703-573-3044
MSDOS SIG.....	Mike Gibbons.....	703-440-0379
SYSOP-ARMUDIC..	Ted Bell.....	703-455-5312
SYSOP-WAACE....	Ed Seward.....	703-573-3044
LIBRARY-8-BIT..	Roy Brooks.....	703-750-0146
MAIL...	Al Friedman.....	703-425-0575
LIBRARY-ST.....	Bob Bell.....	301-593-0889
.....	Glen Bernstein....	703-455-6053
ARMUDIC BBS (XL/XE).....		703-569-8305
WAACE BBS (ST).....		703-534-3503
HOTLINE.....	Andrea Bonham.....	703-534-3503
ATARIFEST'88...	Gary Purinton.....	703-476-8391

NEW MEMBERS: Dues are $20/year/family which includes a subscription to *CURRENT NOTES*. Join at the main meeting or at a chapter meeting or by sending $20, payable to NOVATARI, to Earl Lilley, 821 Ninovan Road SE, Vienna, VA 22180.

NOVATARI MAIN MEETING is at the Washington Gas Light Building, 6801 Industrial Road, Springfield, VA. Take 495 to east on Braddock Rd (620) to south on Backlick Rd (617). Left on Industrial Rd. Washington Gas Light is the 2nd building on right.

5:30 TELECOM SIG
6:15 DOOR PRIZES, announcements, OPEN FORUM
6:45 VAST and 8 BIT SIG Meetings

Mt. Vernon / Hybla Valley, 1st Thursday, 7:30. Contact Ron Peters at 780-0963.
Sterling, Sterling Library, 7:30-9:30, 1st Wed. Contact Wayne Wilt 437-6159.

President's Notes

Elections were held in December. The new board met Jan. 6 at Nottaway Park. Postcards notifying members of lapsed memberships brought in renewals to bring our totals up to 550. Thank you Mike, Earl, and Edmund for a procedure to keep us current.

Now and then the WGL uses their own auditoriums on a second Sunday. When that happens, Novatari moves into one auditorium. That was the case in January and will be so again in March. We cannot complain though because the price is right. Use of the hallways keeps us working. The board made notes on the constitution of WAACE that will be adopted this year with AURA. All interested in this organization that will unite Atari UGs to present the Atarifest should look into the file section of the WAACE BBS to read the proposed constitution. The Novatari Board desires to cut much of it as superfluous, change the director figures, and widen the base to VA, MD, and DC. What do you think?

There are 583 t-shirts left over from the Fest. They are good quality. The color is pleasant and fast (doesn't bleed). One shirt costs $4, three cost $10.

A new SIG is coming on the scene, due to the capacities of the ST to emulate other machines. MagicSac users gathered together at the January meeting to organize. They will compare notes on the use of software and test programs for the public domain library.

ATARIFEST '88 is ready to begin. Some volunteers for telecom, programming, and general work have already appeared. To get on the staff, call Gary Purinton (see masthead).

Tired of treacle, lace, and sweetness? Come to the February meeting on Valentine's Day and kill a happy face. The VAST SIG will have us set up to do so.

Board Meeting Wed. Feb 3, 7:30, NOVATARI Meeting Sun. Feb 15, 5:30, Board Meeting, Wed., Mar. 2, 7:30

A.U.R.A.

Atari Users Regional Association

President.....	Steven Rudolph....	301-464-0835
Vice Pres.....	Bob Langsdale.....	301-390-6554
Treasurer.....	Bob Brock.....	301-268-2554
Membership.....	Dave van Allen....	301-593-4654
8-bit Libr.....	Wayne Heiden.....	301-330-0130
16-bit Libr....	Herb Lane.....	202-332-3618
Equipment.....	Jesse Ayer.....	301-345-1592
Facilities.....	Richard Stoll.....	301-946-8435
Used Equip.....	Lincoln Hallen....	301-460-5060

Meetings. 1st Thursday (until April '88). 7:00 pm (library sales). 7:30-9:00 pm (Program) in the Temple Israel Social Hall. Temple Israel is located in Silver Spring, MD at 420 University Blvd E, between Colesville Rd. (Rt 29) and Piney Branch Rd (Md Rt 320).

Correspondence. All correspondence, including membership renewals, changes of address, etc. should be sent to: AURA, P. O. Box 7761, Silver Spring, MD 20910. AURA cannot guarantee *CURRENT NOTES* subscription fulfillment unless the member provides written confirmation of address changes, renewals, etc. to the address given above.

New Members. Dues are $20 per year and include a subscription to *CURRENT NOTES*. Send name, address, phone number, and check to address given above.

December Meeting. Trevor Schadt demonstrated a variety of games on the ST.

January Meeting. On the night of January 7th the group took advantage of the light attendance to flesh out the executive committee for 1988. The names of those who were willing to serve are given above. The executive committee set an organizational meeting for 16 January. The discussion then turned to steps needed to revitalize the Club. Steps such as emphasizing the libraries, establishing liaison with stores, and advance publication of titles for meeting programs are being investigated. Member input on these and similar matters is sorely needed.

N.C.A.U.G.

National Capital Atari Users' Group

President.....	Peter Kilcullen..	202-296-5700
Vice President.	Mike Pollak.....	703-768-7669
Treasurer.....	Allen H. Lerman..	301-460-0289
XL/XE Librarian	Mike Pollak.....	703-768-7669
ST Librarian...	Enrique Seale....	202-295-0112

MEETINGS: 3rd Tuesday, 5:30 - 8:30 pm, room 543, National Science Foundation offices, 1800 G St., NW, Washington, DC. Closest subway stop is Farragut West on the Blue and Orange lines. Building is identified by sign for Madison National Bank on the corner. Front entrance is on west side of 18th between F and G.

NEW MEMBERS: Membership dues are $20 and include a subscription to *CURRENT NOTES*. Join at the meeting or send check, payable to NCAUG, to Allen Lerman, 14905 Waterway Dr, Rockville, MD 20853.

W.A.C.U.G.

Woodbridge Atari Computer Users' Group

President.....	Lou Praino.....	703-221-8193
First VP.....	Arnie Turk.....	703-670-2547
8-Bit VP.....	Darrell Stiles...	703-494-9819
8-Bit Board Rep..	Stan Rupert.....	703-670-3338
ST VP.....	Bill Parker.....	703-680-3941
ST Board Rep.....	Bill Brooks.....	703-895-5404
Treasurer.....	Chris Moore.....	703-670-5143
Secretary.....	Frank Bassett....	703-670-8780
Librarian.....	Mike Stringer....	703-791-3331
Past President...	Jack Holtzhauer..	703-670-6475

MEETINGS: 7-10PM, Community Room, Potomac Branch, Prince William County Library, Opitz Blvd., Woodbridge, VA. Entering Woodbridge from either North or South on Route 1, proceed to the intersection of Route 1 and Opitz Blvd. (opposite Woodbridge Lincoln-Mercury). Turn West on Opitz and take first left turn into the library's parking lot. The Community Room is located to your left immediately upon entering the main building. Meeting Dates: Feb. 9, Mar. 8, Apr. 19, May 10, June 13.

NEW MEMBERS: Initial membership fee is $10/yr plus $1 monthly dues. Membership includes a subscription to *CURRENT NOTES*. Join at meeting or send check, payable to WACUG, to Frank W. Bassett, 15313 Blacksmith Terr, Woodbridge, VA 22191.

S.M.A.U.G.

Southern Maryland Atari Users' Group

President.....	Thomas Crosby....	301-843-1310
Sec/Disk Lib.....	John J. Smith....	301-862-9490
Treasurer.....	Samuel Schrinar..	301-843-7916
Newsletter Ed....	Leroy Olson.....	301-743-2200

MEETINGS: 2nd Thursday, 7:30 pm, John Hanson Middle School in Waldorf, MD. Take MD Route #5, proceed about 1/2 mile East of the intersection of Route 301 and take first left past the Kinney show store to school.

NEW MEMBERS: Membership dues are $20 and include a subscription to *CURRENT NOTES*. Join at the meeting or send check, payable to SMAUG, to Sam Schrinar, 2032 Alehouse Court, Waldorf, MD 20601.

CN REGISTERED CLUBS

Members of registered clubs receive CN at a discount rate ($17 instead of $20/year). To become a registered club, your club should send in an initial subscription list of 10 percent of the membership or six members whichever is less. For more information, contact Joe Waters, 122 N. Johnson Rd., Sterling, VA 22170.

ABE'S ACES, PO Box 2830, Lehigh Valley PA 18001 (215)759-2683
Atari Bay Area Computer Users Society, Bill Zinn, PO Box 22212, San Francisco CA 94122 (415)753-8483.
Atari Computer Owners of Rochester NY, Kathy Scoville, PO Box 23676, Rochester NY 14692 (716)334-5820.
Atari Exchange of Louisville, Don Garr, PO Box 34183, Louisville KY 40232.
Atari User Group of Greater Hartford, 503-B East Center St, Manchester CT 06040.
Central Illinois Atari User Group, Robert E. Handley, 1920 East Croxton Ave, Bloomington IL 61701 (309)828-4661.
Charlotte Atari Users Group, Joe Venturelli, PO Box 240313, Charlotte NC 28224 (704)366-4320.
Dallas ACE, Rachel Duke, 5902 Preston Oaks, Rd, No.1005, Dallas TX 75240 (214)404-8569.
Fort Leavenworth Atari Group, John L. Hutchinson, PO Box 3233, Ft Leavenworth KS 66027 (913)651-5631.
Frederick ACE, Buddy Smallwood, PO Box 2026, Frederick, MD 21701 (717)485-4714.
Greater Richmond Atari Support Program, S. Thomas Marvin, 1420 Yale Ave, Richmond VA 23224 (804)233-6155.
Huntsville Atari Users Group, Levin C. Soule, 3911 W. Crestview, Huntsville AL 35816 (205)534-1815.
LCC/ST Users Group, Karl Werner, Eli Lilly Corporate Center, Indianapolis IN 46285 (317)276-3020.
Lake County ACE, Dwight R. Johnson, PO Box 8788, Waukegan IL 60079-8788 (312)623-9567.
Little Rock Atari Addicts, Keith Steensma, 28 John Hancock Circle, Jacksonville AR 72076 (501)985-2131.
Midwest Atari Group - Iowa Chapter, Gordie Meyer, PO Box 1982, Ames IA 50010 (515)232-1252.
Packerland Atari Computer Users Society, Randy McSorley, 339 S. Maple St, Kimberly WI 54136 (414)788-1058.
Piedmont Triad Atari Users Group, Hardy W. Hall, Rt. 9, Box 274C, Reidsville NC 27320 (919)349-4684.
Rockand Atari Computer Users Group, Richard Bloch, 29 Riverglen Dr, Thiells NY 10984 (914)429-5283.
ST Atari League of San Antonio, David A. St. Martin, 3203 Coral Grove Dr, San Antonio TX 78247 (512)496-5635.
Seattle Puget Sound ACE, Robert Smith, PO Box 110576, Tacoma, WA 98411.
Southcentral Pennsylvania ACE, H. Richard Basso Jr, PO Box 11446, Harrisburg PA 17108 (717)761-3755.
Southside Tidewater Atari Tech Users Soc, Buck Maddrey, 5245 Shenstone Circle, Virginia Beach VA 23455 (804)464-2100.
Spectrum Atari Group of Erie, H. Earl Hill, PO Box 10562, Erie PA 16514 (814)833-4073.
Triangle Computer Club, Donald Nelson, Rt.3, Box 760, Hillsborough, NC 27278 (919)942-2764.
Warrensburg Atari Computer Owners, Les Lynam, PO Box 199, Warrensburg MO 64093 (816)747-2543.
Wichita ACE, Marilyn Merica, 1722 N. Murray, Wichita KS 67212 (316)722-1078.

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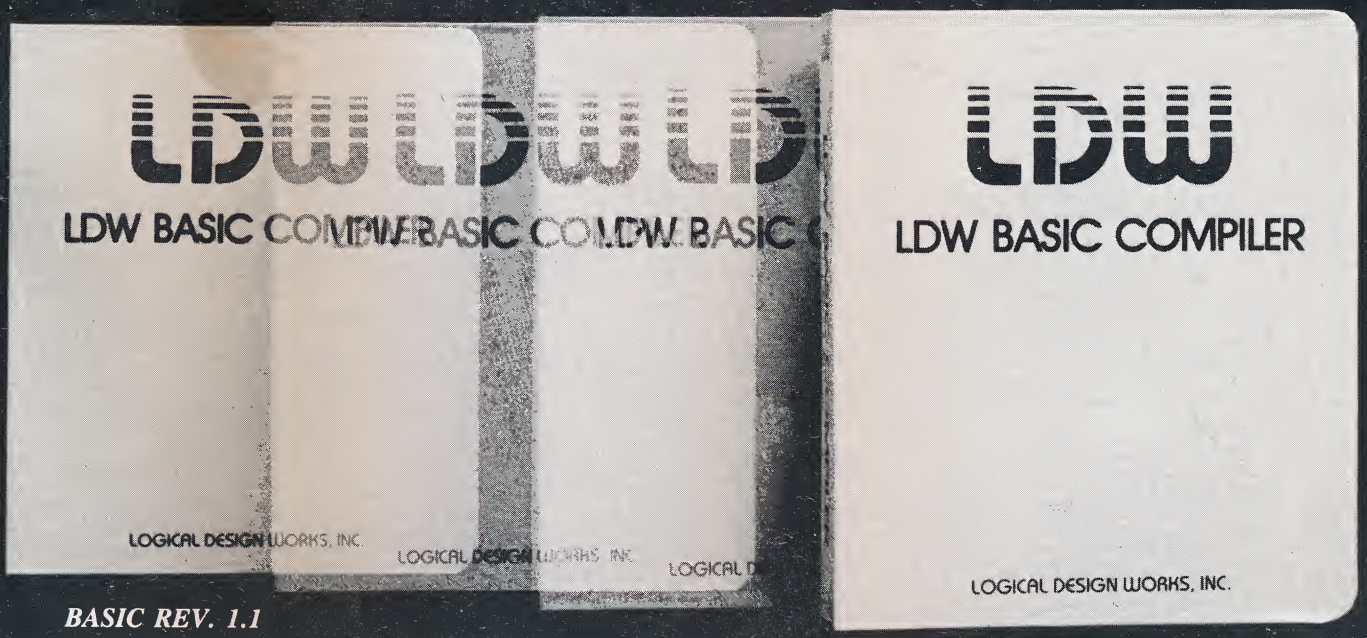

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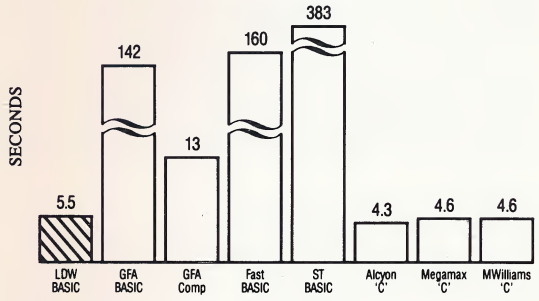

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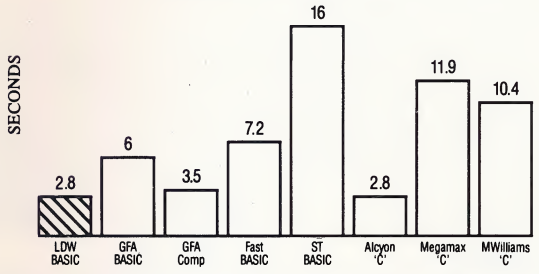

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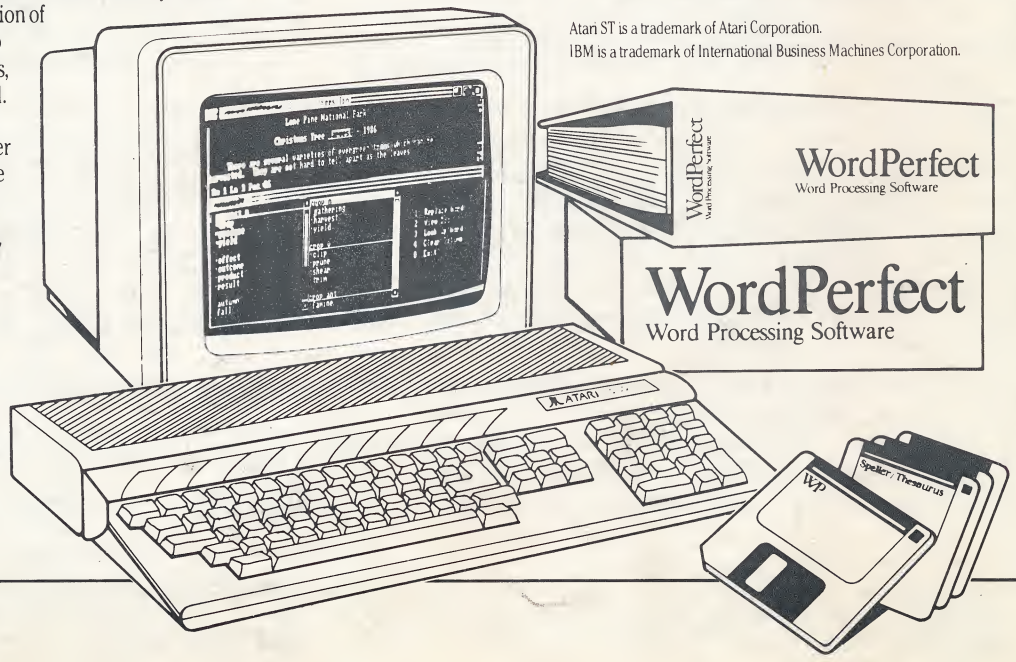
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